LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

MAY 10, 2018

MR RUSSELL BURNS
MILL MANAGER
BOISE WHITE PAPER LLC
4585 INDUSTRIAL ROAD
JACKSON AL 36545

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0002755

Dear Mr. Burns:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you are currently utilizing the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). Your E2 DMRs will automatically update on the effective date of this permit, if issued.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Alex Chavers by e-mail at **adchavers@adem.alabama.gov** or by phone at **(334) 271-7851.**

Sincerely,

Scott Ramsey, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: BOISE WHITE PAPER, LLC

FACILITY LOCATION: 4585 INDUSTRIAL RD
JACKSON, AL 36545

PERMIT NUMBER: AL0002755

RECEIVING WATERS: DSN001: TOMBIGBEE RIVER

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Stream Flow ≤ 2000 CFS (May – October) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	6152 lbs/day	11787 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Solids, Total Suspended	28348 lbs/day	52791 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 5/	1016 lbs/day	1550 lbs/day	-	-	-	Weekly	Composite	May - October
Pentachlorophenol 6/	-	5.3 lbs/day	-	-	-	Monthly	Grab	May - October
Trichlorophenol 6/	-	17.0 lbs/day	-	-	-	Monthly	Grab	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0012: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Stream Flow > 2000 CFS and ≤ 2500 CFS (May – October) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	8397 lbs/day	16089 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Solids, Total Suspended	28348 lbs/day	52791 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 5/	1016 lbs/day	1550 lbs/day	-	-	-	Weekly	Composite	May – October
Pentachlorophenol 6/	-	5.3 lbs/day	-	-	-	Monthly	Grab	May - October
Trichlorophenol 6/	-	17.0 lbs/day	-	-	-	Monthly	Grab	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0013: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Stream Flow > 2500 CFS and < 3200 (May – October) CFS 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	12851 lbs/day	24623 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Solids, Total Suspended	28348 lbs/day	52791 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 5/	1016 lbs/day	1550 lbs/day	-	-	-	Weekly	Composite	May - October
Pentachlorophenol 6/	-	5.3 lbs/day	-	-	-	Monthly	Grab	May - October
Trichlorophenol 6/	-	17.0 lbs/day	-	-	-	Monthly	Grab	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0014: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Stream Flow ≥ 3200 CFS and Production < 1575 tons/day (May – October) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	14251 lbs/day	27305 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Solids, Total Suspended	28348 lbs/day	52791 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 5/	1016 lbs/day	1550 lbs/day	-	-	-	Weekly	Composite	May - October
Pentachlorophenol 6/	-	5.3 lbs/day	-	-	-	Monthly	Grab	May - October
Trichlorophenol 6/	-	17.0 lbs/day	-	-	-	Monthly	Grab	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0015: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Production ≥ 1575 tons/day (November – April) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	17332 lbs/day	33215 lbs/day	-	-	-	3X Weekly test	Composite	November - April
Solids, Total Suspended	31454 lbs/day	58586 lbs/day	-	-	-	3X Weekly test	Composite	November - April
Halogens, Adsorbable Organic 5/	1095 lbs/day	1672 lbs/day	-	-	-	Weekly	Composite	November - April
Pentachlorophenol 6/	-	5.7 lbs/day	-	-	-	Monthly	Grab	November - April
Trichlorophenol 6/	-	17.1 lbs/day	-	-	-	Monthly	Grab	November - April

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0016: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Stream Flow ≥ 3200 CFS and Production ≥ 1575 (May – October) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	14251 lbs/day	27305 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Solids, Total Suspended	31454 lbs/day	58586 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 5/	1095 lbs/day	1672 lbs/day	-	-	-	Weekly	Composite	May - October
Pentachlorophenol 6/	-	5.7 lbs/day	-	-	-	Monthly	Grab	May - October
Trichlorophenol 6/	-	17.1 lbs/day	-	-	-	Monthly	Grab	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0017: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations
Production < 1575 tons/day (November – April) 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	15325 lbs/day	29320 lbs/day	-	-	-	3X Weekly test	Composite	November - April
Solids, Total Suspended	28348 lbs/day	52791 lbs/day	-	-	-	3X Weekly test	Composite	November - April
Halogens, Adsorbable Organic	1016 lbs/day	1550 lbs/day	-	-	-	Weekly	Composite	November - April
Pentachlorophenol 6/	-	5.7 lbs/day	-	-	-	Monthly	Grab	November - April
Trichlorophenol 6/	-	17.1 lbs/day	-	-	-	Monthly	Grab	November - April

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but not more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ Adsorbable Organic Halides (AOX)

6/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.24 by entering *9 on the discharge monitoring report.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001M: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
pH	-	-	5.0 S.U.	-	9.0 S.U.	3X Weekly test	Grab	-
Nitrogen, Ammonia Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April – November
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April – November
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Monthly	Composite	April – November
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Monthly	Continuous	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation. During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Q: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Certification-BMP Submittal 3/	-	-	-	-	0 Yes=0, No=1	Quarterly	Not Applicable	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ The permittee shall report a "0" to indicate compliance with Part IV.9.d, which requires the permittee to submit periodic reports detailing the information detailed at Part IV.9.a.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001S: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	0.00004 lbs/day	-	-	REPORT ppq	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001T: Process wastewater, non-contact cooling water, storm water runoff, construction storm runoff, landfill leachate, sanitary waster, ancillary process wastewater and storm water from sawmill operations 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/			
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Toxicity, Ceriodaphnia Chronic 3/	-	REPORT pass(0)/fail(1)	-	-	-	Annually	Composite	-
Toxicity, Pimephales Chronic 3/	-	REPORT pass(0)/fail(1)	-	-	-	Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.C for Effluent Toxicity Limitations and Biomonitoring Requirement.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AQ: Bleach plant internal requirements 5/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	6.75 lbs/day	11.3 lbs/day	-	-	-	Quarterly	Grab 4/	----------
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Calculated 3/	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ The flow measurement will be determined by the calculated shower flows to the washers. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

4/ Six (6) grab samples, 40 mL each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewere lines may be combined by flow-weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewers do not exist, then sample collection shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such a manner that the samples do not contain entrained air (bubbles).

5/ See Part IV.D for BMP Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS: Bleach plant internal requirements 3/ 4/ 5/ 6/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,4,6-Trichlorophenol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	10 pg/l	Semi-Annually	Composite	-
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	-
Pentachlorophenol	-	-	-	-	5.0 ug/l	Semi-Annually	Composite	-
3,4,6-Trichloroguaiacol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
3,4,6-Trichlorocatechol	-	-	-	-	5.0 ug/l	Semi-Annually	Composite	-
3,4,5-Trichloroguaiacol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
3,4,5 Trichlorocatechol	-	-	-	-	5.0 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.D for BMP Requirements.

5/ See Part IVG for Requirement Test Methods and Minimum Levels.

6/ Any analytical results (using the appropriate EPA test method) for these parameters that is above detection is considered in non-compliance with the permit.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS (continued): Bleach plant internal requirements 3/ 4/ 5/ 6/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Tetrachloroguaiacol	-	-	-	-	5.0 ug/l	Semi-Annually	Composite	
Tetrachlorocatechol	-	-	-	-	5.0 ug/l	Semi-Annually	Composite	-
Trichlorosyringol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
4,5,6-Trichloroguaiacol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
2,4,5-Trichlorophenol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.5 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.D for BMP Requirements.

5/ See Part IVG for Requirement Test Methods and Minimum Levels.

6/ Any analytical results (using the appropriate EPA test method) for these parameters that is above detection is considered in non-compliance with the permit.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. The first report is due on the **28th day of (MONTH, YEAR).** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a **quarterly** basis. The first report is due on the **28th day of [Month, Year].** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-5-.14 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-5-.14 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management

Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

(1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";

(2) threatens human health or welfare, fish or aquatic life, or water quality standards;

(3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and

(6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (http://adem.alabama.gov/DeptForms/Form421.pdf) and include the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

(1) name and general composition of biocide or chemical;

(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;

(2) quantities to be used;

(3) frequencies of use;

(4) proposed discharge concentrations; and

(6) EPA registration number, if applicable.

b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.

b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall; and

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The permittee shall notify the Director as soon as it is known or there is reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(a) one hundred micrograms per liter;

(b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;

(c) five times the maximum concentration value reported for that pollutant in the permit application; or

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(a) five hundred micrograms per liter;

(b) one milligram per liter for antimony;

(c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. begun, or caused to begin as part of a continuous on-site construction program:

      (1) any placement, assembly, or installation of facilities or equipment; or

      (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean -- means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.

5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

9. Daily maximum - means the highest value of any individual sample result obtained during a day.

10. Daily minimum - means the lowest value of any individual sample result obtained during a day.

11. Day - means any consecutive 24-hour period.

12. Department - means the Alabama Department of Environmental Management.

13. Director - means the Director of the Department.

14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).

15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.

16. DO – means dissolved oxygen.

17. 8HC – means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

18. EPA - means the United States Environmental Protection Agency.

19. FC – means the pollutant parameter fecal coliform.

20. Flow – means the total volume of discharge in a 24-hour period.

21. FWPCA - means the Federal Water Pollution Control Act.

22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. MGD – means million gallons per day.

27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:

    a. from which there is or may be a discharge of pollutants;

    b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c. which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

38. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS FOR STORMWATER

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

(1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;

e. Prevent or minimize stormwater contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;

i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;

j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.

b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.

b. All test procedures will be in accordance with part I.B. of this permit.

C. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

1. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

a. Test Requirements

(1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 6% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

(2) Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.

b. General Test Requirements

(1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the permittee and approved by the Department.

(2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

(3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

c. Reporting Requirements

(1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

(2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Section 2 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

d. Additional Testing Requirements

(1) If chronic toxicity is indicated (noncompliance with permit limit), the permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.

(2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.)

e. Test Methods

(1) The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms". The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test

and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

2. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate these requirements or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location, and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(a) Name of firm
(b) Telephone number
(c) Address

(6) Objective of test

b. Plant Operation

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sub-lethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

D. BEST MANAGEMENT PRACTICES (BMPs) FOR SPENT PULPING LIQUOR, SOAP, AND TURPENTINE MANAGEMENT, SPILL PREVENTION, AND CONTROL

1. Applicability

This section applies to direct and indirect discharging pulp, paper, and paperboard mills with pulp production in Subparts B (Bleached Papergrade Kraft and Soda) and E (Papergrade Sulfite) of the Pulp and Paper Guidelines (40 CFR Part 430).

2. Specialized Definitions

a. Action Level: A daily pollutant loading that when exceeded triggers investigative or corrective action. The mill shall determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages).

b. Equipment Items in Spent Pulping, Liquor, Soap, and Turpentine Service: Any process vessel, storage tank, pumping system, evaporator, heat exchanger, recovery furnace or boiler, pipeline, valve, fitting, or other device that contains, processes, transports, or comes into contact with spent pulping liquor, soap, or turpentine. Sometimes referred to as "equipment items".

c. Immediate Process Area: The location at the mill where pulping, screening, knotting, pulp washing, pulping liquor concentration, pulping liquor processing, and chemical recovery facilities are located, generally the battery limits of the aforementioned processes. "Immediate process area" includes spent pulping liquor storage and spill control tanks located at the mill, whether or not they are located in the immediate process area.

d. Intentional Diversion: The planned removal of spent pulping liquor, soap, or turpentine from equipment items in spent pulping liquor, soap, or turpentine service by the mill for any purpose including, but not limited to, maintenance, grade changes, or process shutdowns.

e. Mill: The owner or operator of a direct or indirect discharging pulp, paper, or paperboard manufacturing facility subject to this section.

f. Senior Technical Manager: The person designated by the mill manager to review the BMP Plan. The senior technical manager shall be the chief engineer at the mill, the manager of pulping and chemical recovery operations, or other such responsible person designated by the mill manager who has knowledge of and responsibility for pulping and chemical recovery operations.

g. Soap: The product of reaction between the alkali in Kraft pulping liquor and fatty acid portions of the wood, which precipitate out when water is evaporated from the spent pulping liquor.

h. Spent Pulping Liquor: For Kraft and soda mills "spent pulping liquor" means black liquor that is used, generated, stored, or processed at any point in the pulping and chemical recovery processes. For sulfite mills "spent pulping liquor" means any intermediate, final, or used chemical solution that is used, generated, stored, or processed at any point in the sulfite pulping and chemical recovery processes (e.g., ammonium-, calcium-, magnesium-, or sodium-based sulfite liquors).

i. Turpentine: A mixture of terpenes, principally pinene, obtained by the steam distillation of pine gum recovered from the condensation of digester relief gases from the cooking of softwoods by the Kraft pulping process. Sometimes referred to as sulfite turpentine.

3. Requirement to Implement Best Management Practices

a. The mill must implement the Best Management Practices (BMPs) specified in paragraphs (1) through (10) of this section. The primary objective of the BMPs is to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine that do occur. BMPs must be developed according to best engineering practices and must be implemented in a manner that takes into account the specific circumstances at the mill.

b. The BMPs are as follows:

(1) The mill must return spilled or diverted spent pulping liquors, soap, and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.

(2) The mill must establish a program to identify and repair leaking equipment items. This program must include:

(a) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap, and turpentine service;

(b) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations must be identified, temporary means for mitigating the leaks must be provided, and the leaking equipment items repaired during the next maintenance outage;

(c) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap, and turpentine leaks and spills; and

(d) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills, or failures.

(3) The mill must operate continuous, automatic monitoring systems that the mill determines are necessary to detect and control leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine. These monitoring systems should be integrated with the mill process control system and may include, e.g., high level monitors and alarms on storage tanks; process area conductivity (or pH) monitors and alarms; and process area sewer, process wastewater, and wastewater treatment plant conductivity (or pH) monitors and alarms.

(4) The mill must establish a program of initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel who have the responsibility for operating, maintaining, or supervising the operation and maintenance of equipment items in spent pulping liquor, soap, and turpentine service. The refresher training must be conducted at least annually and the training program must be documented.

(5) The Mill must prepare a brief report that evaluates each spill of spent pulping liquor, soap, or turpentine that is not contained at the immediate process areas and any intentional diversion of spent pulping liquor, soap, and turpentine that is not contained at the immediate process area. The report must describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports must be included as part of the annual refresher training.

(6) The mill must establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap, and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors, soap, and turpentine during construction.

(7) The mill must install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks equivalent to the volume of the largest tank plus sufficient freeboard for precipitation. An annual tank integrity testing program, if coupled with other containment or diversion structures, may be substituted for secondary containment for spent pulping liquor bulk storage tanks.

(8) The mill must install and maintain secondary containment for turpentine bulk storage tanks.

(9) The mill must install and maintain curbing, diking or other means of isolating soap and turpentine processing and loading areas from the wastewater treatment facilities.

(10) The mill must conduct wastewater monitoring to detect leaks and spills, to track the effectiveness of the BMPs, and to detect trends in spent pulping liquor losses. Such monitoring must be performed in accordance with paragraph 9. of the following sections.

4. Requirement to Develop a BMP Plan

a. The mill must prepare and implement a BMP Plan. The BMP Plan must be based on a detailed engineering review as described in paragraphs 4.b. and c. of this section. The BMP Plan must specify the procedures and the practices required for the mill to meet the requirements of paragraph 3. of the previous section, the construction the mill determines is necessary to meet those requirements including a schedule for such construction, and the monitoring program (including the statistically derived action levels) that will be used to meet the requirements of paragraph 9. of the following sections. The BMP Plan also must specify the period of time that the mill determines the action levels established under paragraph 8. of the following sections may be exceeded without triggering the responses specified in paragraph 9. of the following sections.

b. The mill must conduct a detailed engineering review of the pulping and chemical recovery operations – including but not limited to process equipment, storage tanks, pipeline and pumping systems, loading and unloading facilities, and other appurtenant pulping and chemical recovery equipment items in spent pulping liquor, soap, and turpentine service – for the purpose of determining the magnitude and routing of potential leaks, spills, and intentional diversions of spent pulping liquors, soap, and turpentine during the following periods of operation:

(1) Process start-ups and shut downs;

(2) Maintenance;

(3) Production grade changes;

(4) Storm or other weather events;

(5) Power failures;

(6) Normal operations.

c. As part of the engineering review, the mill must determine whether existing spent pulping liquor containment facilities are of adequate capacity for collection and storage of anticipated intentional liquor diversions with sufficient contingency for collection and containment of spills. The engineering review must also consider:

(1) The need for continuous, automatic monitoring systems to detect and control leaks and spills of spent pulping liquor, soap, and turpentine;

(2) The need for process wastewater diversion facilities to protect end-of-pipe wastewater treatment facilities from adverse effects of spills and diversions of spent pulping liquors, soap, and turpentine;

(3) The potential for contamination of storm water from the immediate process areas; and

(4) The extent to which segregation and/or collection and treatment of contaminated storm water from the immediate process areas is appropriate.

5. Amendment of BMP Plan

a. The mill must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.

b. The mill must complete a review and evaluation of the BMP Plan five years after the first BMP Plan is prepared and, except as provided in paragraph 5.a. of this section, once every five years thereafter. As a result of this review and evaluation, the mill must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

6. Review and Certification of BMP Plan

The BMP Plan, and any amendments thereto, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Department under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this permit and 40 CFR Part 430. The mill is not required to obtain approval from the Department of the BMP Plan or any amendments thereto.

7. Record Keeping Requirements

a. The mill must maintain on its premises a complete copy of the current BMP Plan and the records specified in paragraph b. of this section and must make such BMP Plan and records available to the Department for review upon request.

b. The mill must maintain the following records for three years from the date they are created:

(1) Records tracking the repairs performed in accordance with the repair program described in paragraph 3.b.(2) of the previous sections;

(2) Records of initial and refresher training conducted in accordance with paragraph 3.b.(4) of the previous sections;

(3) Reports prepared in accordance with paragraph 3.b.(5) of the previous sections; and

(4) Records of monitoring required by paragraph 3.b.(10) of the previous sections and paragraph 9. of the following sections.

8. Establishment of Wastewater Treatment System Influent Action Levels

a. The mill must conduct a monitoring program, described in paragraph b. of this section, for the purpose of defining wastewater treatment system influent characteristics (or action levels), described in paragraph c. of this section, that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective action.

b. The mill must employ the following procedures in order to develop the action levels required by paragraph 8. of this section;

(1) Monitoring parameters: The mill must collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC). Alternatively, the mill may use a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).

(2) Monitoring locations: For direct discharges, monitoring must be conducted at the point influent enters the wastewater treatment system. For indirect dischargers monitoring must be conducted at the point of discharge to the POTW. For the purposes of this requirement, the mill may select alternate monitoring point(s) in order to isolate possible sources of spent pulping liquor, soap, or turpentine from other possible sources of organic wastewaters that are tributary to the wastewater treatment facilities (e.g., bleach plants, paper machines and secondary fiber operations).

c. By the date described in paragraph 10.a.(3) of the following sections, each existing discharger must complete an initial six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish initial action levels based on the results of this program. A wastewater treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of six months of daily measurements. The action levels must consist of a lower action level, which if exceeded will trigger the investigation requirements described in paragraph 9. of the following section, and an upper action level, which if exceeded will trigger the corrective action requirements described in paragraph 9. of the following section.

d. By the date prescribed in paragraph 10.a.(4) of the following sections, each existing discharger must complete a second six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish revised action levels based on the results of that program. The initial action levels shall remain in effect until replaced by revised action levels.

e. By the date prescribed in paragraph 10.b. of the following sections, each new source must complete a six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must develop a lower action level and an upper action level based on the results of that program.

f. Action levels developed under this paragraph must be revised using six months of monitoring data after any change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas.

9. Monitoring, Corrective Action, and Reporting Requirements

a. The mill must conduct daily monitoring of the influent to the wastewater treatment system in accordance with the procedures described in paragraph 8.b. of the previous section for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.

b. Whenever monitoring results exceed the lower action level for the period of time specified in the BMP Plan, the mill must conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP Plan, the mill must complete corrective action to bring the wastewater treatment system influent mass loading below the lower action level as soon as practicable.

c. Although exceedances of the action levels will not constitute violations of the permit, failure to take the actions required by paragraph 9.b. of this section as soon as practicable will be a permit violation.

d. The mill must report to the Department the results of the daily monitoring conducted pursuant to paragraph 9.a. of this section. Such reports must include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. **Submission of the BMP exceedances shall be quarterly by the 28th day of April, July, and October. A summary of the daily monitoring results shall be submitted annually by the 28th day of January.**

10. Compliance Deadlines

a. Existing direct and indirect dischargers: Except as provided in paragraph 10.b. of this section for new sources, indirect discharging mills must meet the compliance deadlines set forth below. Except as provided in paragraph 10.b. of this section for new sources, direct discharging mills must meet the deadlines set forth below. **If a deadline set forth below has passed at the time the permit is issued, the mill must achieve compliance with the BMP requirement(s) upon the permit effective date.**

(1) **Prepare BMP Plans and certify to the Department** that the BMP Plan has been prepared in accordance with the permit and 40 CFR Part 430 not later than **April 15, 1999;**

(2) Implement **all BMPs** specified in paragraph 3. of the previous sections **that do not require the construction of containment or diversion structures or the installation of monitoring and alarm systems** not later than **April 15, 1999.**

(3) Establish initial action levels required by paragraph 8.c. of the previous sections not later than April 15, 1999.

(4) Commence operation of any new or upgraded continuous, automatic monitoring systems that the mill determines to be necessary under paragraph 3.(3) of the previous sections (other than those associated with construction of containment structures) not later than April 17, 2000.

(5) Complete construction and commence operation of any spent pulping liquor, collection, containment, diversion, or other facilities, including any associated continuous monitoring systems, necessary to fully implement BMPs specified in paragraph 3. of the previous sections not later than April 16, 2001.

(6) Establish revised action levels required by paragraph 3. of the previous sections, by not later than January 15, 2002.

b. New Sources: **Upon commencing discharge,** new sources subject to this section must **implement all of the BMPs** specified in paragraph 3. of the previous sections, **prepare the BMP Plan** required by paragraph 4. of the previous sections, **and certify to the Department** that the BMP Plan has been prepared in accordance with this permit and 40 CFR part 430 as required by paragraph 6. of the previous sections, except that the **action levels** required by paragraph 8.e. of the previous sections **must be established not later than 12 months after commencement of discharge,** based on six months of monitoring data obtained prior to that date in accordance with the procedures specified in paragraph 8.b. of the previous sections.

E. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

1. The cooling water intake structure used by the permittee has been evaluated using available information. At this time, the Department has determined that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316(b) of the Federal Clean Water Act (33 U.S.C. section 1326).

2. The permittee shall submit the following information at least 180 days prior to expiration of the permit:

a. design intake flow of the CWIS

b. percentage of intake flow, based on highest monthly average in last 5 years, used for cooling purposes;

c. an estimate of the intake flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional once-through cooling water system

d. through screen design intake flow velocity

e. any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit

f. a detailed description of any changes in the operations of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish

3. The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels. Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.

4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act. Under the Endangered Species Act, take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct, of endangered or threatened species.

F. STREAM MONITORING

1. Between May 1 and October 31, stream monitoring shall be performed on a once per week basis except during periods when the river flow exceeds 10,000 cubic feet per second (cfs). Monitoring frequency shall be increased to daily when the Tombigbee River dissolved oxygen at the five foot depth between river mile 89.9 and 71.3 is less than 5.4 mg/l. Sampling stations shall be at the Tombigbee River miles 89.9, 87.3, 79.4, 76.8, 73.4, and 71.3, except that when the dissolved oxygen concentration at river mile 71.3 is less than that at river mile 73.4, sampling shall be continued at approximately one mile intervals until the dissolved oxygen concentration at two consecutive stations remains constant or increases at the downstream station. Parameters monitored shall be dissolved oxygen at the five foot depth, BOD5, water temperature and pH. Data from stream monitoring shall be submitted to the Department no later than 28 days following the last day of the reporting period. It is requested that this data be provided to the Department in an electronic format.

2. When measured dissolved oxygen concentrations as determined by the permittee, the appropriate state agency, or the EPA are less than 5.0 mg/l at any point between the Tombigbee River mile 89.9 and the final downstream sampling point, the permittee shall take any steps necessary to ensure that the permitted discharge does not cause a decrease in the measured dissolved oxygen concentration at the downstream monitoring points. Such steps may include reduction in the quantity of effluent discharges or the cessation of wastewater discharge. If dissolved oxygen at the five foot depth, in the above specific interval is less than 5.0 mg/l as a result of water above river mile 88.8 (the permittee's discharge point) having less than 5.0 mg/l of dissolved oxygen or because of other conditions not attributable to the permittee, the permittee shall not be required to take steps beyond ceasing discharge while such conditions exist.

3. The Director may require the permittee to perform stream monitoring during periods other than those specified in paragraph one above, if he determines that river conditions are such that stream monitoring is required to protect water quality.

G. REQUIRED TEST METHODS AND MINIMUM LEVELS FOR INTERNAL BLEACH PLANT MONITORING AND REPORTING

Parameter	Test Method	Minimum Level
TCDD	1613	10 pg/l
TCDF	1613	10 pg/l
Chloroform	601[1]	0.5 µg/l[2]
Trichlorosyringol	1653	2.5 µg/l
3,4,5-Trichlorocatechol	1653	5.0 µg/l
3,4,6-Trichlorocatechol	1653	5.0 µg/l
3,4,5-Trichloroguaiacol	1653	2.5 µg/l
3,4,6-Trichloroguaiacol	1653	2.5 µg/l
4,5,6-Trichloroguaiacol	1653	2.5 µg/l
2,4,5-Trichlorophenol	1653	2.5 µg/l
2,4,6-Trichlorophenol	1653	2.5 µg/l
Tetrachlorocatechol	1653	5.0 µg/l
Tetrachloroguaiacol	1653	5.0 µg/l
2,3,4,6-Tetrachlorophenol	1653	2.5 µg/l
Pentachlorophenol	1653	5.0 µg/l
AOX	1650	20 µg/l

[1]Or other method as approved in 40 CFR 136.

[2]An ML for chloroform was not promulgated in the Cluster Rules. The value in this permit is considered a matrix specific ML typical of levels achieved in paper mill effluents as demonstrated through NCASI studies.

TCDD means 2,3,7,8-tetrachlorodibenzo-p-dioxin

TCDF means 2,3,7,8-tetrachlorodibenzo-p-furan

Minimum level means the level at which the analytical system gives recognizable signals and an acceptable calibration point.

Chavers, Alexander

From: Chavers, Alexander
Sent: Thursday, May 10, 2018 9:30 AM
To: 'Abston, Randy'
Subject: RE: NPDES Draft Comments #2

Randy,

I just wanted to let you know that the corrections have been made and the permit will appear on public notice this month. I'll be uploading a corrected version of the permit along with this discussion to our eFile system today.

Alexander Chavers
334-271-7851
Industrial Section
Alabama Department of Environmental Management

From: Abston, Randy <RandyAbston@BoisePaper.com>
Sent: Friday, April 27, 2018 10:21 AM
To: Chavers, Alexander <adchavers@adem.alabama.gov>
Cc: Burns, Rusty <RustyBurns@BoisePaper.com>; Piotrowski, John <jpiotrowski@packagingcorp.com>
Subject: RE: NPDES Draft Comments #2
Importance: High

Alex,

Thank you for the explanations concerning our permit toxicity language. There is still one error at the end of the toxicity section with two "Conclusions and Recommendations" paragraphs. This has no impact on the regulatory requirements of the language, but could be confusing with the paragraph identification out of order.

Otherwise, we see no reason that the draft cannot be submitted for public comment.

Thanks,

Randy Abston
Environmental Manager
Packaging Corporation of America
4585 Industrial Road
Jackson, Alabama
251-246-8282 (O)
251-589-5843 (C)

From: Chavers, Alexander [mailto:adchavers@adem.alabama.gov]
Sent: Tuesday, April 24, 2018 9:27 AM

To: Abston, Randy <RandyAbston@BoisePaper.com>
Subject: [EXTERNAL] NPDES Draft Comments #2

Randy,

Attached is a revised copy of the draft permit for your review. The only change made based on the submitted comments are the removal of the D.O. limitations of 2.0 mg/L from the DSN001M outfall. This limit was removed in the rationale, but was erroneously left in the permit itself.

Below is a short recap of why no changes were made to the chlorophenolic certification frequency of the toxicity language found in Part IV of the permit.

- Chlorophenolic certification
  - In preparation for compliance with the e-Reporting rule, we are modifying permits with periodic submittal requirements (e.g. chlorophenolic certification, river monitoring requirements, etc.) to allow for permittees to certify or indicate submittal through the DMR. Due to this change, the certification frequency must be the same as the monitoring frequency for the specific parameters.
- Part IV Toxicity Language
  - It is understandable that the facility would want to continue the language from the 2011 issuance; however, based on my understanding, that language was not accurately reflective of the Department's expectations in terms of reporting noncompliance with the permit. As written in this permit issuance, the language is consistent with all other permits that have toxicity in the state and consistent with the rules and regulations in the administrative code.
  - To further clarify and reiterate our conversations around this subject, if an initial toxicity test is performed and fails and the test is deemed valid, the result is considered a noncompliance with the permit, regardless of the two required follow-up tests. If that initial test is considered invalid due to various reasons (contamination, bad control, lab failure, etc..) the initial test should be repeated.
  - The best rule of thumb about toxicity is to contact the appropriate staff here if there are any questions regarding testing, compliance, reporting, etc. Transparency is always the best policy.

I have also added BMP submitting certification under a new DSN001Q (the same frequency required in part IV.D) so have a look at that. I will be adding a similar certification statement to DSN001M for the river monitoring reports, but I have to wait on the parameter to be added to our database first.

I would like to put this on public notice next month if you are okay with these changes so please let me know by the end of the week if I can move forward or if you would like to discuss further.

Alexander Chavers
334-271-7851
Industrial Section
Alabama Department of Environmental Management

NPDES PERMIT RENEWAL APPLICATION

Prepared for:

BOISE WHITE PAPER, LLC
4585 INDUSTRIAL ROAD
JACKSON, ALABAMA

January 2016

Prepared by:

Spivey
Engineering
Solutions, LLC

Table of Contents

Section 1. Introduction

Boise White Paper, LLC owns and operates an integrated bleached Kraft pulp and paper mill in Jackson, Alabama. The facility discharges process wastewater, non-contact cooling water, and storm water runoff to the Tombigbee River through Outfall DSN001 under National Pollutant Discharge Elimination System (NPDES) Permit AL0002755 issued by the Alabama Department of Environmental Management (ADEM). The facility operates an effluent treatment system to treat process wastewater from the pulp and paper mill and recycle mill, sanitary wastewater from facility buildings, and leachate collected from the company-owned landfill. A precipitated calcium carbonate (PCC) manufacturing plant owned by Specialty Minerals Inc. operates under State Indirect Discharge Permit No. IU-40-13-00069 and discharges to the mill's effluent treatment system. In addition, a softwood lumber mill owned by Scotch and Gulf Lumber LLC operates under State Indirect Discharge Permit No. IU-40-13-00072 and discharges to the mill's effluent treatment system.

The current permit prescribes discharge limits for two operating scenarios: (1) paper production of 1,575 tons per day or more, and (2) paper production less than 1,575 tons per day. The categorical limits for operating scenario 1 are based on the mill's capability to produce approximately 1,575 tons per day of uncoated free-sheet paper at the mill. The production capacity is based upon the rated capacities for the mill's two paper machines:

J-1 Paper Machine	475 tons per day
J-3 Paper Machine	1,100 tons per day

The bleached deink pulp production associated with the existing deinking facility is 275 tons per day, equivalent to 314 tons per day of paper production. The categorical limits for operating scenario 2 are based upon the mill's actual production rates within the most recent five-year operating period.

Like the current NPDES permit, the proposed permit includes two operating scenarios because market conditions for recycle pulp furnish have resulted in the reduction of recycled pulp production that most likely will not continue through the duration of the renewed permit (five years).

This permit renewal application includes a request and statistical justifications for reduced monitoring frequency for five-day biochemical oxygen demand (BOD) during the period between November 1 and April 30, total suspended solids (TSS), and adsorbable organohalogens (AOX) in Outfall DSN 001 and chloroform in the internal bleach plant outfall DSN 01A1.

Section 2. Proposed Permit

Operating Scenario 1 – 1,575 Tons per Day Paper Production

Boise is proposing to retain the same final effluent limits in the proposed permit as those contained in the existing permit for the operating scenario of 1,575 tons per day or more. The production basis for this scenario in the existing permit is as follows:

	Pulp (Tons per Day)	Paper (Tons per Day)	Total Production (Tons per Day)
Permit Basis	**0**	**1,575**	**1,575**
Secondary Fiber Deink (40 CFR Part 430 Subpart I)	275	314	
Fine Bleached Kraft (40 CFR Part 430 Subpart B)	800	912	
Non-Integrated Fine Paper (40 CFR Part 430 Subpart K)	306 (Purchased)	349	

These production numbers reflect mill capacity rather than actual production rates. Because market conditions for recycle pulp furnish have resulted in an extended curtailment of recycled pulp production accompanied by an increase in purchased pulp furnish, Boise White Paper, LLC proposes to use production capacity as the basis for development of the categorical limits for this operating scenario. It is anticipated that the mill will be utilizing full production during the term of the new permit. The calculated effluent limits based on the categorical and other sources are presented below. This summary includes a breakdown of the limits by the various categorical subparts. The effluent limits associated with 40 CFR Part 430 Subparts B and I are based on best practicable control technology currently available (BPT) limits consistent with the existing permit. Subpart K is based on New Source Performance Standards (NSPS) because this paper production is from the No. 3 Paper Machine, which was constructed in 1996. Table 2-1 provides the basis for the categorical portion of these limits.

	BOD5 (ppd)		TSS (ppd)	
	Average	**Maximum**	**Average**	**Maximum**
Permit Sources				
Deinking Facility (Subpart I)	5,903	11,367	8,133	15,103
Paper Production (Subpart B)	10,032	19,334	21,706	40,402
Non-Integrated Paper (Subpart K)	1,326	2,443	1,605	3,071
Landfill Leachate (BPJ)	66	66	6	6
Sanitary Wastewater (BPJ)	5	5	5	5
Allowable Limits	**17,332**	**33,215**	**31,455**	**58,587**

BOD5 = Biochemical oxygen demand
ppd = pounds per day

Table 2-1
NPDES Permit Limits for Paper Production of 1,575 Tons per Day or More
Boise White Paper, LLC – Jackson, Alabama

Category	Description	Limit Basis	Categorical Limits (lbs per 1,000 lbs)				Production (Tons per Day)	Allowable Limits (ppd)			
			Daily Max		Monthly Avg			Daily Max		Monthly Avg	
			BOD5	TSS	BOD5	TSS		BOD5	TSS	BOD5	TSS
Subpart B	Bleached Papergrade Kraft & Soda	BPT	10.6	22.15	5.5	11.9	912	19,334	40,402	10,032	21,706
Subpart I	Secondary Fiber Deink	BPT	18.1	24.05	9.4	12.95	314	11,367	15,103	5,903	8,133
Subpart K	Fine and Lightweight Papers from Purchased Pulp	NSPS	3.5	4.4	1.9	2.3	349	2,443	3,071	1,326	1,605
						Categorical Subtotals	**1,575**	**33,144**	**58,576**	**17,261**	**31,444**
						Leachate and Sanitary Sewer Subtotals	**0**	**71**	**11**	**71**	**11**
						Totals	**1,575**	**33,215**	**58,587**	**17,332**	**31,455**

Footnotes:

1. Paper production is based on 14 percent filler and bleached pulp from the following sources:
   - Pulp Mill 800 Bleached Air-Dry Tons of Pulp per Day (BADTP/Day)
   - Recycle Mill 275 BADTP/Day
   - Purchased Pulp 306 BADTP/Day

BPT = Best practicable control technology currently available
NSPS = New Source Performance Standards
ppd = pounds per day

Operating Scenario 2 – Daily Production Less Than 1,575 Tons

Categorical limits for the Jackson Mill's operating scenario with daily paper production less than 1,575 tons have been developed using the average daily production rates for pulp, secondary fiber, and fine paper recorded for the 2014 operating year. Table 2-2 summarizes the 2014 production totals.

Table 2-2
Paper Machine Monthly Production Totals for September 2014 through August 2015
Boise White Paper, LLC – Jackson, Alabama

Month	No. 1 and No. 3 Paper Machines			Bleached Kraft Pulp Production			Recycle Pulp Production		
	Total Machine Production (ADT)	Operating Days	Average Daily Production (ADT/Day)	Total Kraft Pulp Production (BADTP)	Operating Days	Average Daily Production (ADT/Day)	Recycle Mill Production (ADT)	Operating Days	Average Daily Production (ADT/Day)
Sep 14	45,664	30	1,522.1	23,267	30	775.6	4,953	30	**165.1**
Oct 14	47,191	31	1,522.3	23,889	31	770.6	4,904	31	158.2
Nov 14	32,011	23	1,391.8	17,504	23	761.0	3,145	23	136.7
Dec 14	46,828	31	1,510.6	24,010	31	774.5	5,034	31	162.4
Jan 15	45,995	31	1,483.7	24,246	31	782.1	4,526	31	146.0
Feb 15	41,447	28	1,480.3	20,664	28	738.0	4,562	28	162.9
Mar 15	46,946	31	1,514.4	24,801	31	**800.0**	4,452	31	143.6
Apr 15	35,962	25.8	1,393.9	21,498	30	716.6	2,408	30	80.3
May 15	46,673	31	1,505.6	22,969	31	740.9	4,682	31	151.0
Jun 15	45,489	30	1,516.3	21,028	30	700.9	4,749	30	158.3
Jul 15	47,846	31	**1,543.4**	23,322	31	752.3	4,765	31	153.7
Aug 15	47,812	31	1,542.3	23,101	31	745.2	4,942	31	159.4
Maximum Month*			**1,543.4**						

The production numbers in Table 2-2 summarize actual production rates for the period from September 2014 through August 2015. The calculated effluent limits based on the categorical and other sources are presented below for the scenario with total daily paper production less than 1,575 tons per day. This summary includes a breakdown of the limits by the various categorical subparts. The effluent limits associated with 40 CFR Part 430 Subparts B and I are based on best practicable control technology currently available (BPT) limits consistent with the existing permit. Subpart K is based on New Source Performance Standards (NSPS) because this paper production is from the No. 3 Paper Machine, which was constructed in 1996. Table 2-3 provides the basis for the categorical portion of these limits.

Table 2-3
Proposed NPDES Permit Limits for Paper Production of Less Than 1,575 Tons per Day
Boise White Paper, LLC – Jackson, Alabama

Category	Description	Limit Basis	Categorical Limits (lbs per 1,000 lbs)				Production (Tons per Day)	Allowable Limits (ppd)			
			Daily Max		Monthly Avg			Daily Max		Monthly Avg	
			BOD5	TSS	BOD5	TSS		BOD5	TSS	BOD5	TSS
Subpart B	Bleached Papergrade Kraft & Soda	BPT	10.6	22.15	5.5	11.9	912.0	19,334	40,402	10,032	21,706
Subpart I	Secondary Fiber Deink	BPT	18.1	24.05	9.4	12.95	188.2	6,813	9,052	3,538	4,874
Subpart K	Fine and Lightweight Papers from Purchased Pulp	NSPS	3.5	4.4	1.9	2.3	443.2	3,102	3,900	1,684	2,039
						Categorical Subtotals	**1,543.4**	**29,249**	**53,354**	**15,254**	**28,619**
						Leachate and Sanitary Sewer Subtotals	**0**	**71**	**11**	**71**	**11**
						Totals	**1,543.4**	**29,320**	**53,365**	**15,325**	**28,630**

Footnotes:

1. Paper production is based on 14 percent filler and bleached pulp from the following sources:
   - Pulp Mill 800.0 Bleached Air-Dry Tons of Pulp per Day (BADTP/Day)
   - Recycle Mill 165.1 BADTP/Day
   - Purchased Pulp 388.8 BADTP/Day

BPT = Best practicable control technology currently available
NSPS = New Source Performance Standards
ppd = pounds per day

	BOD5 (ppd)		TSS (ppd)	
	Average	**Maximum**	**Average**	**Maximum**
Permit Sources				
Deinking Facility (Subpart I)	3,538	6,813	4,874	9,052
Paper Production (Subpart B)	10,032	19,334	21,706	40,402
Non-Integrated Paper (Subpart K)	1,684	3,102	2,039	3,900
Landfill Leachate	66	66	6	6
Sanitary Wastewater	5	5	5	5
Allowable Limits	**15,325**	**29,320**	**28,630**	**53,365**

BOD5 = Biochemical oxygen demand
ppd = pounds per day

Water Quality Based Limits

In 1998, CH2M Hill prepared a calibrated water quality model for the discharges into the Tombigbee River below Coffeeville Dam. This model included the discharge from the Boise White Paper, LLC facility in Jackson, Alabama. The calibrated model was reviewed and approved by ADEM and was used as the basis for developing flow-based effluent limits in the 1998 permit modification. These limits were incorporated into the January 2006 and July 2011 NPDES permit.

Final Effluent Limits (Water Quality Based)

Water quality-based effluent limits at the mill were developed using the water quality model of the Tombigbee River with the measured Alabama River Cutoff flow of 360 cubic feet per second (cfs). Table 2-4 summarizes these water quality-based effluent limits and associated Tombigbee River flows for the Jackson Mill's discharge.

Projections during the winter months (November through April) indicate that the Tombigbee River has an assimilative capacity for 17,345 lbs/day BOD5 in the Jackson Mill discharge. Because this amount is greater than the allowable permit loading based on categorical requirements, there is no need for flow-based limits during the winter months. However, the wintertime (November through April) effluent limit of 17,332 lbs/day BOD5 should be included in the permit.

Table 2-4. Final NPDES 5-Day BOD and TSS Limits
Boise White Paper, LLC – Jackson, Alabama

Parameter	Discharge Months	River Flow (cfs)	River Cutoff Flow	Discharge Limits (ppd)		Comments
				Monthly Average	Daily Maximum	
BOD5	May – Oct	<2,000	360 cfs	6,152	11,800	Normal Operation
	May – Oct	≤2,500	360 cfs	8,397	16,106	
	May – Oct	≤3,200	360 cfs	13,242	25,377	
	May – Oct	>3,200	360 cfs	17,332	33,215	
	Nov – Apr	All	360 cfs	17,332	33,215	
TSS	Jan – Dec	All	360 cfs	31,455	58,587	

cfs = cubic feet per second

Bleach Plant Effluent

Boise White Paper, LLC operates one bleaching system. Federal categorical standards, 40 CFR Part 430 Pulp, Paper, and Paperboard Category Subpart B, apply to the discharge of chloroform, TCDD, TDCF, and the 12 chlorinated phenolics from this bleaching system. For the purposes of calculating the chloroform discharge limits, the unbleached pulp production rate, in air-dry tons per day, is used. Boise produced 27,557 air-dry tons of unbleached pulp in 31 operating days during the month of March 2015. The maximum monthly average unbleached pulp production rate is therefore 888.9 air-dry tons of unbleached pulp per day.

Development of Cluster Rule Effluent Limits

Boise White Paper, LLC's Jackson Mill is subject to the Effluent Limitation Guidelines and Standards for the Pulp, Paper and Paperboard Point Source Category prescribed in 40 CFR Part 430 by the U. S. Environmental Protection Agency (EPA). Discharges associated with the Effluent Limitation Guidelines are conveyed to the mill's wastewater treatment system and discharged through Outfall DSN001. Tables 2-1 and 2-3 summarize the calculated effluent limits for five-day BOD and TSS for Operating Scenarios 1 and 2, respectively.

The March 2015 monthly average unbleached pulp production rate was used in the calculation of effluent limits for AOX and chloroform from the bleaching system. The unbleached Kraft pulp production entering the first stage of the bleaching system was 27,557 air-dry unbleached short tons and the bleach plant operated for 31 days during the month of March 2015. The chloroform and AOX discharge limits are determined from the unbleached Kraft pulp production (888.9 air-dry unbleached short tons per day) using the Best Available Technology Economically Achievable limits for continuous dischargers in 40 CFR 430.24(a)(1). The resulting maximum daily AOX discharge limit is 1,691 pounds per day, and the monthly average AOX discharge limit is 1,108 pounds per day. The resulting maximum daily chloroform discharge limit is 12.30 pounds per day, and the monthly average chloroform discharge limit is 7.36 pounds per day.

Section 3. NPDES Permit Renewal Application

This section provides the permit application forms used for this application for NPDES permit renewal. In addition, water quality-based modeling results are provided and a proposed draft of the reissued permit, using a mark-up of the existing permit, is provided.

The U. S. Environmental Protection Agency (EPA) and ADEM forms associated with this permit renewal are provided in Appendix A of this report. These forms include the following:

- U. S. EPA Form 1
- U. S. EPA Form 2C (for Outfall DSN001)
- ADEM Form 187

A list of the chemicals added to the mill water for cooling or boiler systems is provided in Table 3-1. A site map showing the NPDES outfall locations is provided in Figure 3-1.

Proposed Permit Renewal

A proposed draft of the permit under this application is provided in Appendix B. A mark-up of the most recently issued permit (effective August 1, 2011) was used for this purpose.

Wastewater Characteristics

The characteristics of the wastewater from the mill are the same as that used for the existing permit. The parameters are summarized in Table 3-2.

Table 3-2. Wastewater Treatment Plant Loadings
Boise White Paper, LLC – Jackson, Alabama

Parameter	Design Average	Design Maximum
Raw Wastewater		
Flow, mgd	19.5	23.2
BOD5, ppd	91,987	128,685
TSS, ppd	146,928	303,276

ppd = pounds per day
mgd = million gallons per day

The wastewater treatment plant will be operated to provide treatment necessary to comply with the mill's NPDES permit limits.

Table 3-1
Biocides and Chemical Additives
Boise White Paper, LLC – Jackson, Alabama

Product Name	Product Type	Manufacturer	Used At	Hazardous Ingredients*
AC-TR2	Paper Machine Cleaner	Crews	J-1 and J-3 Paper Machines	Phosphoric Acid
AMA-115	Biocide	Kemira	J-1 and J-3 Paper Machines	5-Chloro-2-Methyl-4-Isothiazolin-3-One, 2-Methyl-4-Isothiazolin-3-One, Magnesium Nitrate
AMA-1750	Biocide	Kemira	J-1 and J-3 Paper Machines	Glutaraldehyde and Methanol
Conquor 3475	Oxygen Scavenger	Nalco	Utilities – Boiler Feed Water Treatment	Hydroquinone
Fennosurf 586	Biocide	Kemira	J-1 and J-3 Paper Machines	Ammonium Sulfate
MacroGro 1218	Micronutrient	EBS	Effluent Treatment System	Ammonia
Nalco BT-2611	Dispersant	Nalco	Utilities – Boiler Feed Water Treatment	Sodium Hydroxide
Nalco C-9	Corrosion Inhibitor	Nalco	Mill Water Treatment	Phosphoric Acid and Zinc Chloride
Nalco 7346T	Biocide	Nalco	Evaporator Cooling Tower	None
Nalco 7408	Oxygen Scavenger	Nalco	Mill Water Treatment	Sodium Bisulfite
Optimer 8110	Flocculant	Nalco	Mill Water Treatment	None
Presstige FB9090	Felt Conditioner	Solenis	J-1 and J-3 Paper Machines	Potassium Hydroxide
Spectrum XD3899	Biocide	Solenis	J-3 Paper Machine	Ammonium Bromide
Spectrum RX9100	Biocide	Solenis	J-1 and J-3 Paper Machines	Magnesium Chloride
Spectrus OX1200	Biocide (Microbial Control)	Solenis	Utilities – Anaerobic Cooling Tower	1-Bromo-3-Chloro-5,5-Dimethylhydantoin
Trasar 23267	Dispersant	Nalco	Evaporator Cooling Tower	None
Ultramine 120	Corrosion Inhibitor	Nalco	Utilities – Boiler Feed Water Treatment	Cyclohexylamine

*Chemicals designated as hazardous (40 CFR Part 117 and 40 CFR Part 302) or extremely hazardous substances (40 CFR Part 355).

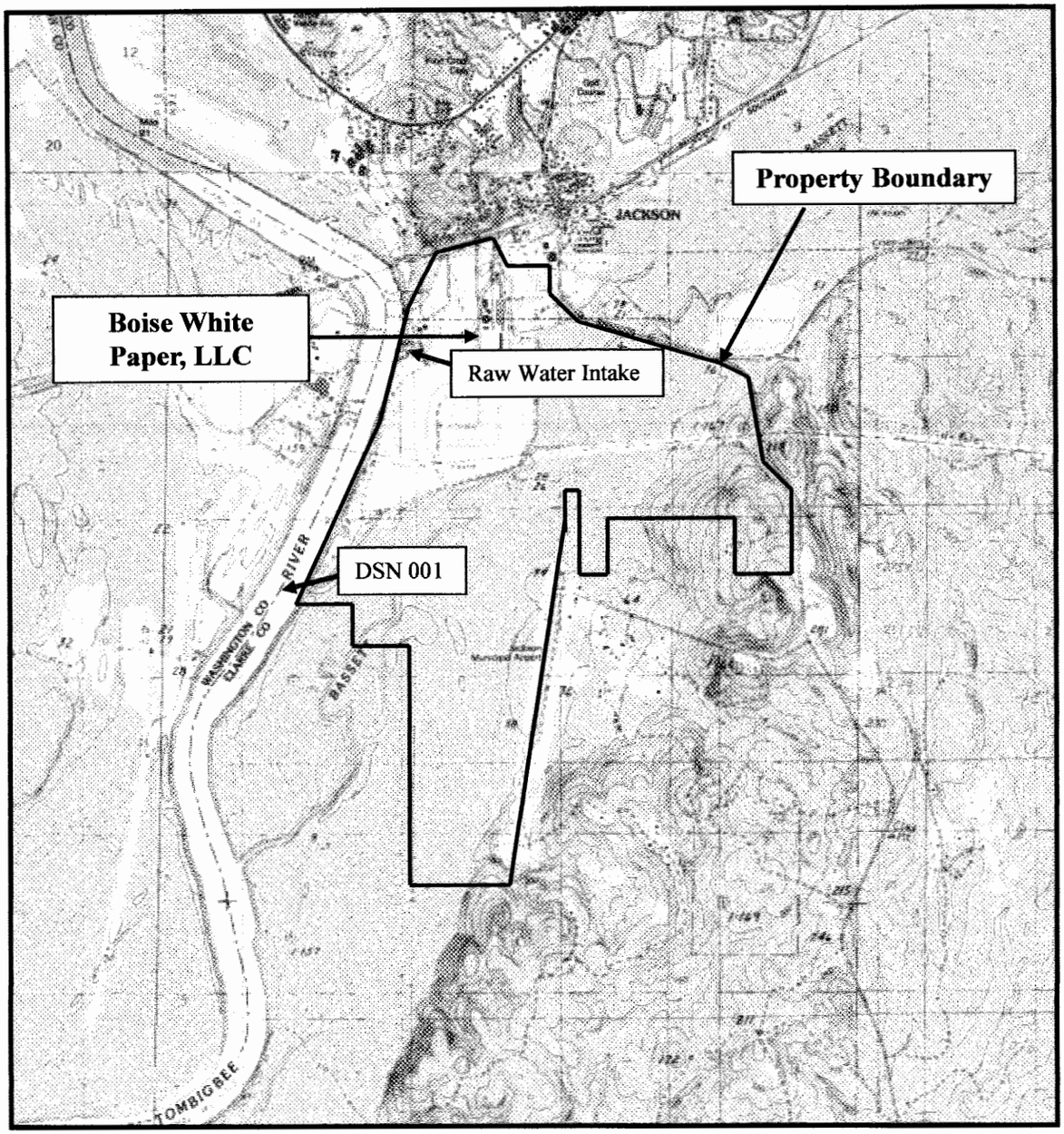


Figure 3-1. Site Map
Boise White Paper, LLC – Jackson, Alabama

Cluster Rule Requirements

Boise White Paper, LLC proposes to continue to monitor the final effluent and the bleach plant effluent for the parameters required by the "Cluster Rule" as promulgated in 40 CFR Part 430 Subpart B. However, the mill has applied EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to three years of effluent discharge data for adsorbable organohalogens (AOX) from DSN 001 to demonstrate that the AOX monitoring frequency can be reduced from three days per week to one day per week without increasing the probability of reporting a violation of monthly average AOX in the final effluent. Similarly, Boise White Paper, LLC has applied this guidance to five years of discharge data for chloroform from internal outfall DSN 01A1 to demonstrate that the chloroform monitoring frequency can be reduced from once every two months to once per calendar quarter without increasing the probability of reporting a violation of monthly average chloroform in the bleach plant discharge. Boise therefore requests that the monitoring frequency of AOX in the final effluent be reduced from three times per week to once per week and that the monitoring frequency of chloroform in internal outfall 01A1 be reduced from once every two months to once per calendar quarter in the NPDES permit renewal.

Appendix A
Renewal Application Forms

EPA Form 1

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

For Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	*AL0002755*		D
1	2 13	14	15

LABEL ITEMS

- **I. EPA I.D. NUMBER**
- **III. FACILITY NAME**
- **V. FACILITY MAILING LIST**
- **VI. FACILITY LOCATION**

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been proved. Refer to the instructions for detailed item descriptions and for the legal authorization under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental from listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.?** (FORM 2A)	☐ 16	☒ 17	☐ 18
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.?** (FORM 2B)	☐ 19	☒ 20	☐ 21
C. Is this facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	☒ 22	☐ 23	☒ 24
D. Is this proposal facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.?** (FORM 2D)	☐ 25	☒ 26	☐ 27
E. Does or will this facility treat, store, or dispose of **hazardous wastes?** (FORM 3)	☐ 28	☒ 29	☐ 30
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	☐ 31	☒ 32	☐ 33
G. Do you or will you inject at this facility any produced water other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	☐ 34	☒ 35	☐ 36
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfer by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	☐ 37	☒ 38	☐ 39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area?** (FORM 5)	☐ 40	☒ 41	☐ 42
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment are?** (FORM 5)	☐ 43	☒ 44	☐ 45

III. NAME OF FACILITY

C 1 | SKIP | *BOISE WHITE PAPER, LLC*

15 | 16-29 | 30 ... 69

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 *ABSTON, JONATHAN R. - ENVIRONMENTAL MANAGER* (15 16 ... 45)	*251* (46 48) *246* (49 51) *8282* (52 55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 *4585 INDUSTRIAL ROAD* (15 16 ... 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 *JACKSON* (15 16 ... 40)	*AL* (41 42)	*36545* (47 51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 *4585 INDUSTRIAL ROAD* (15 16 ... 45)

B. COUNTY NAME

CLARKE (46 ... 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 *JACKSON* (15 16 ... 40)	*AL* (41 42)	*36545* (47 51)	(52 54)

CONTINUED ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		B. SECOND	
2621	(specify) PAPER MILL	2611	(specify) KRAFT PULP MILL
C. THIRD		**D. FOURTH**	
	(specify)		(specify)

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
BOISE WHITE PAPER, LLC	☒ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC *(other than federal or state)*; O = OTHER *(specify)*

P (specify)

D. PHONE *(area code & no.)*: A — 251 — 246 — 4461

E. STREET OR PO BOX: 4585 INDUSTRIAL ROAD

F. CITY OR TOWN	G. STATE	H. ZIP CODE
JACKSON	AL	36545

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*: AL0002755	D. PSD *(Air Emissions from Proposed Sources)*: SEE ATTACHED LIST	
B. UIC *(Underground Injection of Fluids)*	E. OTHER *(specify)*: 102-0001	*(Specify)* TITLE V OPERATING PERMIT
C. RCRA *(Hazardous Wastes)*: ALD981757529	E. OTHER *(specify)*: SEE ATTACHED LIST	*(Specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. **See attached Figure 3-1.**

XII. NATURE OF BUSINESS *(provide a brief description)*

Boise White Paper, LLC produces recycled pulp, bleached Kraft pulp, and fine paper.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
RUSSELL BURNS, MILL MANAGER		

COMMENTS FOR OFFICIAL USE ONLY

Attachment to EPA Form 1 Item X and ADEM Form 187 Item A.14
Environmental Permits
Boise White Paper, LLC – Jackson, Alabama

Type of Permit	Permit Number
NPDES Permit	AL0002755
Industrial Waste Landfill Permit	13-05
Major Source Operating Permit (Pulp and Paper)	102-0001
PSD Air Permit to Construct – No. 2 Recovery Furnace	102-0001-X011
PSD Air Permit to Construct – Multiple-Effect Evaporator System	102-0001-X004
Air Permit to Construct – No. 2 Recovery Furnace	102-0001-Z011
Department of the Army Corps Permit	AL04-00047-L
ADECA Certificate of Use	OWR-0013

EPA Form 2C

Please type or print in the unshaded areas only	EPA ID Number *(Copy from Item 1 of Form 1)* **AL0002755**	*Form Approved OMB No. 2040-0086 Approval expires 7-31-88*

Form **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICUTLRAL OPERATIONS

Consolidated Permits Program

I. Outfall Location

For this outfall, list the latitude and longitude, and name of the receiving water(s)

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	
001	***31***	***28***	***36***	***87***	***54***	***41***	***Tombigbee River***

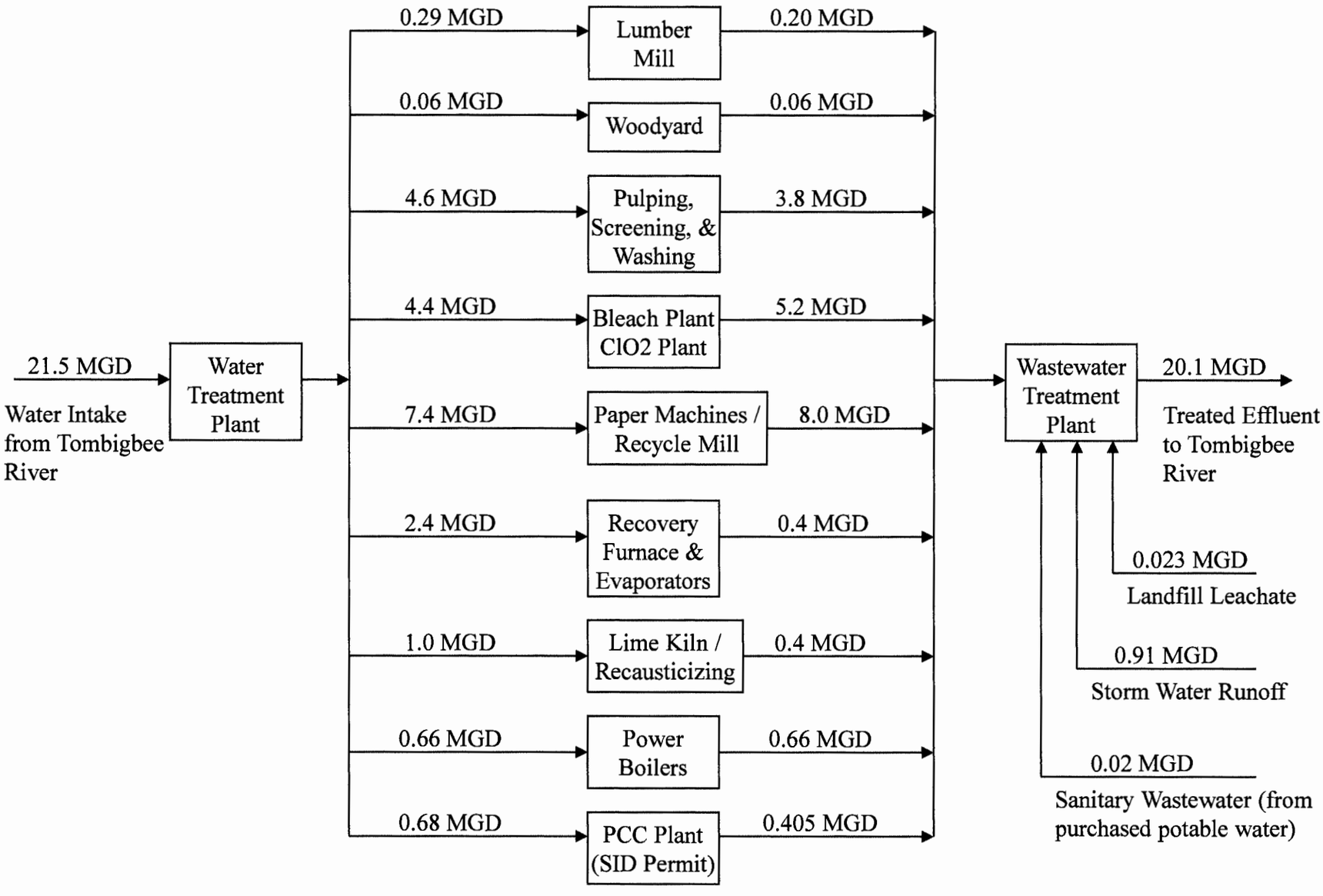
II. Flows, Sources of Pollution, and Treatment Technologies

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g, for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

1. Outfall Number	2. Operations Contributing Flow		3. Treatment		
	a. OPERATION *(list)*	b. AVERAGE FLOW	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	***Woodyard***	***0.06 MGD***	***Settling***	***1***	***U***
	Pulp Digesters / Washing	***3.80 MGD***	***Screw Presses***	***5***	***R***
	Pulp Bleaching	***5.20 MGD***	***Aerated Lagoon***	***3***	***B***
	Paper Machines / Recycle Mill	***8.00 MGD***	***Stabilization Ponds***	***3***	***G***
	Recovery Furnace / Liquor Evaporators	***0.40 MGD***	***Gravity Thickening***	***5***	***L***
	Lime Kiln / Recausticizing	***0.40 MGD***	***Landfill***	***5***	***Q***
	Power Boilers	***0.66 MGD***	***Discharge***	***4***	***A***
	PCC Plant (Indirect Discharge)	***0.405 MGD***			
	Lumber Mill (Indirect Discharge)	***0.20 MGD***			
	Storm Water Runoff	***0.91 MGD***			
	Landfill Leachate	***0.023 MGD***			
	Sanitary Wastewater	***0.02 MGD***			

II.A. Line Drawing for Boise White Paper, LLC – Jackson



Attachment to Form 2C Item II.B - Storm Water Calculation

Boise White Paper, LLC – Jackson Mill
NPDES Permit No. AL0002755

Average annual precipitation for Thomasville, AL	58.6 inches per year
Site area drainage to the wastewater treatment system	300 acres
Runoff coefficient for overall site [2]	0.7
Calculated total runoff per year to wastewater treatment system	334 million gallons
Calculated daily average contribution to wastewater treatment system	**0.91 MGD**

(Note: Above value used on page 1 of Form 2C)

[1] Average annual precipitation obtained from http://countrystudies.us/united-states/weather/alabama/thomasville.htm

[2] Runoff coefficient based on the midpoint of range for an industrial area (0.5 – 0.9) as outlined in *Applied Hydrology*, Chow et al., 1999, Second edition.

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C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ **YES** *(complete the following table)* ☒ **NO** *(go to Section III)*

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units		c. DURATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ **YES** *(complete Item III-B)* ☐ **NO** *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ **YES** *(complete Item III-C)* ☐ **NO** *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	(list outfall numbers)
912 (Design)	***Air-Dry Tons***	***Subpart B – Bleached Papergrade Kraft and Soda***	***001***
314 (Design)	***Air-Dry Tons***	***Subpart I – Secondary Fiber Deink***	***001***
349 (Design)	***Air-Dry Tons***	***Subpart K – Non-Integrated Fine Paper***	***001***
1,575 (Design)	***Machine Tons***	***Total Fine Paper Production***	
912 (Actual)	***Air-Dry Tons***	***Subpart B – Bleached Papergrade Kraft and Soda***	***001***
188.2 (Actual)	***Air-Dry Tons***	***Subpart I – Secondary Fiber Deink***	***001***
443.2 (Actual)	***Air-Dry Tons***	***Subpart K – Non-Integrated Fine Paper***	***001***
1,543.4 (Actual)	***Machine Tons***	***Total Fine Paper Production***	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ **YES** *(complete the following table)* ☒ **NO** *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. No	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED**

EPA ID Number *(Copy from Item 1 of Form 1)*
AL0002755

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V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables or each outfall - Annotate the outfall number in the space provided. **NOTE:** Tables V-A, V-B, and V-C are included on separate sheets number V-1 through V-9.

D: Use the space below t list any of the pollutants listed in Tables 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ **YES** *(list all such pollutants below)* ☐ **NO** *(go to Item VI-B)*

Based on the regulatory guidance and Effluent Limitations established in the Integrated Pulp and Paper Cluster Rule, 2,3,7,8-TCDD is assumed to be present in the effluent from mills that utilize the elemental chlorine-free bleaching process. The Jackson Mill collects samples semi-annually from the bleach plant outfall (internal to discharge) and from the final outfall and has not detected 2,3,7,8-TCDD in any of its samples.

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ **YES** *(identify the test(s) and describe their purpose below)* ☐ **NO** *(go to Section VIII)*

Short-term chronic toxicity test results have been submitted to ADEM previously as required by current NPDES permit.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ **YES** *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ **NO** *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
TestAmerica	***3355 McLemore Drive***	***(850) 474-1001***	***Form 2C pollutants***
Laboratories, Inc.	***Pensacola, FL 32514***	( )	***(excluding BOD, TSS,***
		( )	***pH, and temperature)***
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Russell Burns – Mill Manager	***(251) 246-8211***
C. SIGNATURE	D. DATE SIGNED

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
AL0002755

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	***114***	***15,340***	***61.5***	***10,074***	***33.7***	***5,645***	***473***	***mg/L***	***lb/day***			
b. Chemical Oxygen Demand *(COD)*	***250***	***79,856***	***250***	***48,789***	***250***	***41,908***	***1***	***mg/L***	***lb/day***			
c. Total Organic Carbon *(TOC)*	***130***	***41,525***	***130***	***25,370***	***130***	***21,792***	***1***	***mg/L***	***lb/day***			
d. Total Suspended Solids *(TSS)*	***249***	***40,732***	***63.0***	***10,511***	***27.2***	***4,559***	***473***	***mg/L***	***lb/day***			
e. Ammonia *(as N)*	***12***	***3,833***	***12***	***2,342***	***4.56***	***764***	***12***	***mg/L***	***lb/day***			
f. Flow	Value ***38.3***		Value ***23.4***		Value ***20.1***		***474***		***MGD***	Value		
g. Temperature *(winter)*	Value ***25.3***		Value ***25.3***		Value ***16.7***		***1***	°C		Value		
h. Temperature *(summer)*	Value ***Ambient***		Value ***Ambient***		Value ***Ambient***		***0***	°C		Value		
i. pH	Minimum ***7.0***	Maximum ***7.9***	Minimum ***7.3***	Maximum ***7.7***			***470***	STANDARD UNTIS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitation guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	☒	☐	***< 10***	***< 3,194***					***1***	***mg/L***	***lb/day***			
b. Chlorine, Total Residual	☐	☒	***< 0.05***	***< 16.0***					***1***	***mg/L***	***lb/day***			
c. Color	☒	☐	***860***						***1***	***PCU***				
d. Fecal Coliform	☒	☐	***240***						***1***	***col/100 mL***				
e. Fluoride (16984-48-8)	☐	☒	***< 2.0***	***< 639***					***1***	***mg/L***	***lb/day***			
f. Nitrate-Nitrite *(as N)*	☒	☐	***0.80***	***256***					***1***	***mg/L***	***lb/day***			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*	☒	☐	*9.8*	*3,130*	*9.8*	*1,913*	*3.5*	*587*	*13*	*mg/L*	*lb/day*			
h. Oil and Grease	☒	☐	*5.5*	*1,757*					*1*	*mg/L*	*lb/day*			
i. Phosphorus *(as P)*, Total (7723-14-0)	☒	☐	*1.9*	*607*	*1.9*	*371*	*1.5*	*251*	*12*	*mg/L*	*lb/day*			
j. Radioactivity														
(1) Alpha, Total	☒	☐							*1*	*pCi/L*				
(2) Beta, Total	☒	☐							*1*	*pCi/L*				
(3) Radium, Total	☒	☐							*1*	*pCi/L*				
(4) Radium 226, Total	☒	☐							*1*	*pCi/L*				
k. Sulfate *(as SO_4) (14808-79-8)*	☒	☐	*350*	*111,800*					*1*	*mg/L*	*lb/day*			
l. Sulfide (as S)	☒	☐	*< 0.10*	*< 32.0*					*1*	*mg/L*	*lb/day*			
m. Sulfite *(as SO_3) (14265-45-3)*	☒	☐	*3.2*	*1,022*					*1*	*mg/L*	*lb/day*			
n. Surfactants	☒	☐	*0.16*	*51.1*					*1*	*mg/L*	*lb/day*			
o. Aluminum, Total (7429-90-5)	☒	☐	*1.1*	*351*					*1*	*mg/L*	*lb/day*			
p. Barium, Total (7440-39-3)	☒	☐	*0.28*	*89.4*					*1*	*mg/L*	*lb/day*			
q. Boron, Total (7440-42-8)	☒	☐	*< 0.10*	*< 31.9*					*1*	*mg/L*	*lb/day*			
r. Cobalt, Total (7440-48-4)	☐	☒												
s. Iron, Total (7439-89-4)	☒	☐	*0.78*	*249*					*1*	*mg/L*	*lb/day*			
t. Magnesium, Total (7439-95-4)	☒	☐	*19*	*6,069*					*1*	*mg/L*	*lb/day*			
u. Molybdenum, Total (7439-98-7)	☐	☒												
v. Manganese, Total (7439-96-5)	☒	☐	*0.93*	*297*					*1*	*mg/L*	*lb/day*			
w. Tin, Total (7440-31-5)	☐	☒												
x. Titanium, Total (7440-32-6)	☐	☒												

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
AL0002755	*001*

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT						d. NO. OF ANALYSIS	3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1m. Antimony, Total (7440-36-0)	☒	☐	☐	*< 0.050*	*< 16.0*					*1*	*mg/L*	*lb/day*			
2M. Arsenic, Total (7440-38-2)	☒	☐	☐	*< 0.005*	*< 1.60*					*1*	*mg/L*	*lb/day*			
3M. Beryllium, Total (7440-41-7)	☒	☐	☐	*< 0.003*	*< 0.96*					*1*	*mg/L*	*lb/day*			
4M. Cadmium, Total (7440-43-9)	☒	☐	☐	*< 0.005*	*< 1.60*					*1*	*mg/L*	*lb/day*			
5M Chromium, Total (7440-47-3)	☒	☐	☐	*< 0.010*	*< 3.19*					*1*	*mg/L*	*lb/day*			
6M Copper, Total (7440-50-8)	☒	☐	☐	*< 0.010*	*< 3.19*					*1*	*mg/L*	*lb/day*			
7M Lead, Total (7439-92-1)	☒	☐	☐	*< 0.005*	*< 1.60*					*1*	*mg/L*	*lb/day*			
8M Mercury, Total (7439-97-6)	☒	☐	☐	*< 0.0002*	*<0.064*					*1*	*mg/L*	*lb/day*			
9M Nickel, Total (7440-02-0)	☒	☐	☐	*0.0052*	*1.66*					*1*	*mg/L*	*lb/day*			
10M Selenium, Total (7782-49-2)	☒	☐	☐	*< 0.010*	*< 3.19*					*1*	*mg/L*	*lb/day*			
11M Silver, Total (7440-22-4)	☒	☐	☐	*< 0.005*	*< 1.60*					*1*	*mg/L*	*lb/day*			
12M Thallium, Total (7440-28-0)	☒	☐	☐	*< 0.010*	*< 3.19*					*1*	*mg/L*	*lb/day*			
13M Zinc, Total (7440-66-6)	☒	☐	☐	*0.029*	*9.26*					*1*	*mg/L*	*lb/day*			
14M Cyanide, Total (57-12-5)	☒	☐	☐	*< 0.005*	*< 1.60*					*1*	*mg/L*	*lb/day*			
15M Phenols, Total	☒	☐	☐	*0.012*	*3.83*					*1*	*mg/L*	*lb/day*			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764--01-6)	☒	☐	☐	DESCRIBE RESULTS *0 ppq*											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS															
1V. *Acrolein (107-02-8)*	☒	☐	☐	*< 20*	*< 6.39*					*1*	*ug/L*	*lb/day*			
2V *Acrylonitrile (107-13-1)*	☒	☐	☐	*< 10*	*< 3.19*					*1*	*ug/L*	*lb/day*			
3V Benzene (71-43-2)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
4V Bis *(Chloromethyl)* Ether (542-88-1)	☐	☐	☒												
5V Bromoform (75-25-2)	☒	☐	☐	*< 5.0*	*< 1.60*					*1*	*ug/L*	*lb/day*			
6V Carbon Tetrachloride (56-23-5)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
7V Chlorobenzene (108-90-7)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
8V Chlorodibromomethane (124-48-1)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
9V Chloroethane (75-00-3)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
10V 2-Chloroethylvinyl Ether (110-75-8)	☒	☐	☐	*< 5.0*	*< 1.60*					*1*	*ug/L*	*lb/day*			
11V Chloroform (67-66-3)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
12V Dichlorobromomethane (75-71-8)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
13V Dichlorodifluoromethane (75-71-8)	☐	☐	☒												
14V 1,1-Dichloroethane (75-34-3)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
15V 1,2-Dichloroethane (107-06-2)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
16V 1,1-Dichloroethylene (75335-4)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
17V 1,2-Dichloropropane (78-87-5)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
18V 1,3-Dichloropropylene (542-76-6)	☒	☐	☐	*< 5.0*	*< 1.60*					*1*	*ug/L*	*lb/day*			
19V Ethylbenzene (100-41-4)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
20V Methyl Bromide (74-83-9)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			
21V Methyl Chloride (74-87-3)	☒	☐	☐	*< 1.0*	*< 0.32*					*1*	*ug/L*	*lb/day*			

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: *AL0002755*

OUTFALL NUMBER: *001*

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT						3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS *(continued)*															
22 V Methylene Chloride (75-09-2)	☒	☐	☐	< 5.0	< 1.60					1	ug/L	lb/day			
23V 1,1,2,2-Tetra-Chloroethane (79-34-5)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
24V Tetrachloro-ethylene (127-18-4)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
25V Toluene (108-88-3)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
26V 1,2-Trans-Dichloroethylene (156-60-5)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
27V 1,1,1-Tri-chloroethane (71-55-6)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
28V 1,1,2-Tri-chloroethane (79-00-5)	☒	☐	☐	< 5.0	< 1.60					1	ug/L	lb/day			
29V Trichloro-ethylene (79-01-6)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
30V Trichloro-fluoromethane (75-69-4)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
31V Vinyl Chloride (75-01-4)	☒	☐	☐	< 1.0	< 0.32					1	ug/L	lb/day			
GC/MS FRACTION - ACID COMPOUNDS															
1A 2-Chlorophenol (95-57-8)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
2A 2,4-Dichloro-phenol (120-83-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
3A 2,4-Dimethyl-phenol (105-67-9)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
4A 4,6-Dinitro-O-cresol (534-52-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
5A 2,4-Dinitro-phenol (51-28-5)	☒	☐	☐	< 32	< 10.2					1	ug/L	lb/day			
6A 2-Nitro-phenol (88-75-5)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
7A 4-Ntro-phenol (100-02-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
8A P-Chloro-M-Cresol (59-50-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
9A Penta-chlorophenol (87-86-5)	☒	☐	☐	< 21	< 6.71					1	ug/L	lb/day			
10A Phenol (10/-95-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
11A 2,4,6-Tri-chlorophenol (88-06-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B Acenphthene (83-32-9)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
2B Acenaphtylene (208-96-8)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
3B Anthracene (120-12-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
4B Benzidine (92-87-5)	☒	☐	☐	< 26	< 8.31					1	ug/L	lb/day			
5B Benzo (a) Anthracene (56-55-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
6B Benzo (a) Pyrene (50-32-8)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
7B 3,4-Benzo-fluoranthene (205-99-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
8B Benzo *(ghi)* Perylene (191-24-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
9B Benzo *(k)* Fluoranthene (207-08-9)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
10B Bis *(2-Chloroethoxy)* Methane (111-91-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
11B Bis *(2-Chloro-ethyl)* Ether (111-44-4)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
12B Bis *(2-Chloroisepropyl)* Ether (102-60-1	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
13B Bis*(2-Ethyl-hexyl)* Phthalate (117-81-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
14 B 4-Bromo-phenyl Phenyl Ether (101-55-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
15B Butyl Benzyl Phthalate (85-68-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
16B 2-Chloro-naphthalene (91-68-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
17B 4-Chloro-phenyl Phenyl Ether (7005-72-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
18B Chrysene (218-01-9)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
19B Dibenzo *(a,h)* Anthracene (53-70-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
20B 1,2-Dichloro-benzene (95-50-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
21B 1,3-Dichloro-benzene (541-73-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			

CONTINUE ON PAGE V-7

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: **AL0002755**

OUTFALL NUMBER: **001**

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT						d. NO. OF ANALYSIS	3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B 1,4-Dichlorobenzene (106-46-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
23B 3,3'-Dichlorobenzidine (91-94-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
24B Diethyl Phthalate (84-66-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
25B Dimethyl Phthalate (131-11-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
26B Di-N-Butyl Phthalate (131-11-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
27B 2,4-Dinitrotoluene (121-14-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
28B 2,6-Dinitrotoluene (606-20-2)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
29B Di-N-Octyl Phthalate (117-84-0)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
30B 1,2-Diphenylhydrazine *(as Azo-benzene)* (122-66-7)	☐	☐	☒												
31B Fluoranthene (206-44-0)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
32B Fluorene (86-73-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
33B Hexachlorobenzene (118-74-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
34B Hexachlorobutadiene (87-68-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
35B Hexachlorocyclopentadiene (77-47-4)	☒	☐	☐	< 21	< 6.71					1	ug/L	lb/day			
36B Hexachloroethane (67-72-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
37B Indeno *(1,2,3-cd)* Pyrene (193-39-5)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
38B Isophorone (78-59-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
39B Napthalene (91-20-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
40B Nitrobenzene (98-95-3)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
41B N-Nitrosodimethylamine (62-75-9)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
42B N-Nitrosdi-N-Propylamine (621-64-7)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'			2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B N-Nitrosodiphenylamine (86-30-6)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
44B Phenanthrene (85-01-/	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
45B Pyrene (129-00-0)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
46B 1,2,4-Trichlorobenzene (120-82-1)	☒	☐	☐	< 11	< 3.51					1	ug/L	lb/day			
GC/MS FRACTION - PESTICIDES															
1P Aldrin (309-00-2)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
2P α-Bhc (319-85-7)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
3P β-Bhc (319-85-7)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
4P γ-BHC (58-89-9)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
5P δ-BHC (319-86-8)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
6P Chlordane (57-74-9)	☒	☐	☐	< 0.53	< 0.17					1	ug/L	lb/day			
7P 4,4'-DDT (50-29-3)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
8P 4,4'-DDE (72-55-9)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
9P 4,4'-DDD (72-54-8)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
10P Dieldrin (60-57-1)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
11P α-Endosulfan (115-29-7)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
12P β-Endosulfan (115-29-7	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
13P Endosulfan Sulfate (1031-07-8)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
14P Endrin (72-20-8)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
15P Endrin Aldehyde (7421-93-4)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			
16P Heptachlor (76-44-8)	☒	☐	☐	< 0.053	<0.017					1	ug/L	lb/day			

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CONTINUED FROM PAGE V-6

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
AL0002755	*001*

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - PESTICIDES *(continued)*															
17P Heptachlor Expxide (1024-57-3)	☒	☐	☐	*< 0.053*	*<0.017*					*1*	*ug/L*	*lb/day*			
18P PCB-1242 (53469-21-9)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
19P PCB-1254 (11097-69-1)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
20P PCB-1221 (11104-28-2)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
21P PCB-1232 (11141-16-5)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
22P PCB-1248 (12672-29-6)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
23P PCB-1260 (11096-82-5)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
24P PCB-1016 (12674-11-2)	☒	☐	☐	*< 0.53*	*< 0.17*					*1*	*ug/L*	*lb/day*			
25P Toxaphene (8001-35-2)	☒	☐	☐	*< 3.2*	*< 1.02*					*1*	*ug/L*	*lb/day*			

ADEM Form 187

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT APPLICATION SUPPLEMENTARY INFORMATION

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – INDUSTRIAL / MINING PERMIT SECTION
POST OFFICE BOX 301463
MONTGOMERY, ALABAMA 36130-1463

INSTRUCTIONS: **APPLICATIONS SHOULD BE TYPED OR PRINTED IN INK AND SUBMITTED TO THE DEPARTMENT IN DUPLICATE. IF INSUFFICIENT SPACE IS AVAILABLE TO ADDRESS ANY ITEM, PLEASE CONTINUE ON AN ATTACHED SHEET OF PAPER. PLEASE MARK N/A IN THE APPROPRIATE BOX WHEN AN ITEM IS NON-APPLICABLE TO THE APPLICANT.**

PURPOSE OF THIS APPLICATION

☐ INITIAL PERMIT APPLICATION FOR NEW FACILITY
☐ INITIAL PERMIT APPLICATION FOR EXISTING FACILITY
☐ MODIFICATION OF EXISTING PERMIT
☑ REISSUANCE OF EXISTING PERMIT
☐ REVOCATION & REISSUANCE OF EXISTING PERMIT

1. Facility Name: Boise White Paper LLC

   a. Operator Name: Boise White Paper LLC

   b. Is the operator identified in 1.a., the owner of the facility? Yes ☑ No ☐
   If no, provide the name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number AL 0 0 0 2 7 5 5

3. SID Permit Number (if applicable): IU ___ ___ - ___ ___ - ___ ___ ___ ___ ___

4. NPDES General Permit Number (if applicable) ALG ___ ___ ___ ___ ___ ___ ___

5. Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)

   Street: 4585 Industrial Road

   City: Jackson County: Clarke State: Alabama Zip: 36545

   Facility (Front Gate) Latitude: 31 degrees 29 minutes 39 seconds Longitude: -87 degrees 53 minutes 57 seconds

6. Facility Mailing Address (Street or Post Office Box): 4585 Industrial Road

   City: Jackson State: Alabama Zip: 36545

7. Responsible Official (as described on page 13 of this application):

Name and Title: Russell Burns, Mill Manager

Address: 4585 Industrial Road

City: Jackson State: Alabama Zip: 36545

Phone Number: (251) 246-8211

EMAIL Address: RustyBurns@BoisePaper.com

8. Designated Facility Contact:

Name and Title: Jonathan R. Abston, Environmental Manager

Phone Number: (251) 246-8282

EMAIL Address: RandyAbston@BoisePaper.com

9. Designated Discharge Monitoring Report Contact:

Name and Title: Jonathan R. Abston, Environmental Manager

Phone Number: (251) 246-8282

EMAIL Address: RandyAbston@BoisePaper.com

10. Type of Business Entity:

☑ Corporation ☐ General Partnership ☐ Limited Partnership

☐ Sole Proprietorship ☐ Other (Please Specify) _____

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: 9 East Lockerman Street, Suite 1B

City: Dover County: Kent State: Delaware Zip: 19901

b) Parent Corporation of Applicant:

Name: Packaging Corporation of America

Address: 1955 West Field Court

City: Lake Forest State: Illinois Zip: 60045

c) Subsidiary Corporation(s) of Applicant:

Name: N/A

Address: _____

City: _____ State: _____ Zip: _____

d) Corporate Officers:

Name: Jay C. Thiessen, Vice President - White Paper Manufacturing

Address: 1955 West Field Court

City: Lake Forest State: Illinois Zip: 60045

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

e) Agent designated by the corporation for purposes of service:

Name: C T Corporation System

Address: 2 North Jackson Street, Suite 605

City: Montgomery State: Alabama Zip: 36104

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name: N/A

Address: _____

City: _____ State: _____ Zip: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: N/A

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

Permit Name	Permit Number	Held By
See attached list of environmental permits		

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
None			

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes (If more than one applies, list in order of importance:

a. 2621

b. 2611

c. _____

d. _____

e. _____

Attachment to EPA Form 1 Item X and ADEM Form 187 Item A.14
Environmental Permits
Boise White Paper, LLC – Jackson, Alabama

Type of Permit	Permit Number
NPDES Permit	AL0002755
Industrial Waste Landfill Permit	13-05
Major Source Operating Permit (Pulp and Paper)	102-0001
PSD Air Permit to Construct – No. 2 Recovery Furnace	102-0001-X011
PSD Air Permit to Construct – Multiple-Effect Evaporator System	102-0001-X004
Air Permit to Construct – No. 2 Recovery Furnace	102-0001-Z011
Department of the Army Corps Permit	AL04-00047-L
ADECA Certificate of Use	OWR-0013

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

Industrial Categories

[ ]	Aluminum Forming	[ ]	Metal Molding and Casting
[ ]	Asbestos Manufacturing	[ ]	Metal Products
[ ]	Battery Manufacturing	[ ]	Nonferrous Metals Forming
[ ]	Can Making	[ ]	Nonferrous Metals Manufacturing
[ ]	Canned and Preserved Fruit and Vegetables	[ ]	Oil and Gas Extraction
[ ]	Canned and Preserved Seafood	[ ]	Organic Chemicals Manufacturing
[ ]	Cement Manufacturing	[ ]	Paint and Ink Formulating
[ ]	Centralized Waste Treatment	[ ]	Paving and Roofing Manufacturing
[ ]	Carbon Black	[ ]	Pesticides Manufacturing
[ ]	Coal Mining	[ ]	Petroleum Refining
[ ]	Coil Coating	[ ]	Phosphate Manufacturing
[ ]	Copper Forming	[ ]	Photographic
[ ]	Electric and Electronic Components Manufacturing	[ ]	Pharmaceutical
[ ]	Electroplating	[ ]	Plastic & Synthetic Materials
[ ]	Explosives Manufacturing	[ ]	Plastics Processing Manufacturing
[ ]	Feedlots	[ ]	Porcelain Enamel
[ ]	Ferroalloy Manufacturing	[✔]	Pulp, Paper, and Fiberboard Manufacturing
[ ]	Fertilizer Manufacturing	[ ]	Rubber
[ ]	Foundries (Metal Molding and Casting)	[ ]	Soap and Detergent Manufacturing
[ ]	Glass Manufacturing	[ ]	Steam and Electric
[ ]	Grain Mills	[ ]	Sugar Processing
[ ]	Gum and Wood Chemicals Manufacturing	[ ]	Textile Mills
[ ]	Inorganic Chemicals	[ ]	Timber Products
[ ]	Iron and Steel	[ ]	Transportation Equipment Cleaning
[ ]	Leather Tanning and Finishing	[ ]	Waste Combustion
[ ]	Metal Finishing	[ ]	Other (specify)_____
[ ]	Meat Products		

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

Boise White Paper, LLC operates a bleached Kraft pulp and paper mill in Jackson, Alabama. The pulp and paper mill produces uncoated free sheet paper from bleached Kraft pulp and recycled pulp manufactured on site and purchased market bleached Kraft pulp. A precipitated calcium carbonate plant owned by Specialty Minerals Inc. and a lumber mill owned by Scotch and Gulf Lumber Company LLC operate under State Indirect Discharge permits and discharge to the mill's wastewater treatment system.

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in question 2 of Section B and are considered Categorical Industrial Users should skip to question 2 of this section.

1. **For Non-Categorical Users Only**: Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Not Applicable			

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ at _____
(days of week) (hours of day)

d. Flow rate: _____ gallons/minute

e. Percent of total discharge: _____

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

2. **Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

[ ] Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow (batch, continuous, intermittent)
Bleached Paper Kraft	40 CFR Part 430	Subpart B	Continuous
Secondary Fiber Deink	40 CFR Part 430	Subpart I	Continuous
Non-Integr. Fine Paper	40 CFR Part 430	Subpart K	Continuous

2b.

Process Description	Last 12 Months (gals/day) Highest Month Average*	Highest Flow Year of Last 5 (gals/day) Monthly Average*	Discharge Type (batch, continuous, intermittent)
Bleached Paper Kraft	1,824,000 pounds per day	1,742,000 pounds per day	Continuous
Secondary Fiber Deink	376,400 pounds per day	372,300 pounds per day	Continuous
Non-Integr. Fine Paper	886,400 pounds per day	926,800 pounds per day	Continuous

*** Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.**

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2c.

Non categorical Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Not Applicable			

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
Non-Contact Cooling Water	4,100,000	4,100,000
Storm Water Runoff	1,200,000	950,000

All Applicants must complete Questions 3 – 5.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Flow Metering	Yes	✔	No	___	N/A	___
Sampling Equipment	Yes	✔	No	___	N/A	___

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

Outfall weir is equipped with ISCO flow meter for metering discharge flow, and ISCO samplers are used for sampling treated effluent discharged to the Tombigbee River.

4. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes ☐ No ☑ (If no, skip Question 5)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

5. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
See attached list.	

For each biocide and/or corrosion inhibitor used, please include the following information:

(1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
(2) quantities to be used,
(3) frequencies of use,
(4) proposed discharge concentrations, and
(5) EPA registration number, if applicable

Attachment to Form 187 Item C.5 – Biocides and Corrosion Inhibitors Used by Boise White Paper, LLC

Product Name	Product Type	96-Hour Median Tolerance Limit	Quantity To Be Used	Frequency of Use	Proposed Discharge Concentration	EPA Registration Number
AMA-115 (1.25% 5-chloro-2-methyl-4-isothiazolin-3-one, 0.45% 2-methyl-4-isothiazolin-3-one, and 1.8% magnesium nitrate)	Biocide	0.19 mg/L	80,000 lbs/ year	Continuous	< 0.13 mg/L	Not provided by MSDS
AMA-1750 (50% Glutaraldehyde)	Biocide	5.4 mg/L	15,000 lbs/ year	Continuous	< 0.25 mg/L	Not provided by MSDS
Fennosurf 586 (20-30% ammonium sulfate)	Biocide	No studies per MSDS	1,355 lbs/day	Continuous	< 8.1 mg/L	Not provided by MSDS
Nalco C-9 (30-60% phosphoric acid and 30-60% zinc chloride)	Corrosion Inhibitor	> 5,000 mg/L	330 lbs/day	Continuous	< 2.0 mg/L	Not provided by MSDS
Nalco 7346T (60% 1,3-dichloro-5,5-dimethylhydantoin, 27.4% 1-bromo-3-chloro-5,5-dimethylhydantoin, and 10.6% 1,3-dichloro-5-ethyl-5-methylhydantoin)	Biocide	0.71 mg/L	30 lbs/day	6 months/ year (May through October)	< 0.18 mg/L	Not provided by MSDS
Spectrum XD3899 (35% ammonium bromide)	Biocide	No studies per MSDS	< 1,335 lbs/ day	Continuous	< 8.0 mg/L	8622-64-74655
Spectrum RX9100 (magnesium chloride, 2-5% magnesium nitrate, 2-bromo-2-nitropropane-1,3-diol, and 5-chloro-2-methyl-4-isothiazolin-3-one)	Biocide	3.5 mg/L	130 lbs/day	Continuous	0.78 mg/L	3876-151-45017
Spectrus OX1200 (1-bromo-3-chloro-5,5-dimethylhydantoin)	Biocide	2.34 mg/L	870 lbs/year	Intermittent	< 0.15 mg/L	3876-150
Ultramine 120 (10-30% cyclohexylamine and 10-30% methoxypropylamine)	Corrosion Inhibitor	No studies per MSDS	64 lbs/day	Continuous	0.38 mg/L	Not provided by MSDS

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

[ ] Private Well
[✔] Municipal Water Utility (Specify City):
[✔] Surface Water
[ ] Other (Specify):

IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT

City: 0.02 *MGD Well: _____ *MGD Well Depth: ____ Ft. Latitude: _____ Longitude: _____

Surface Intake Volume: 21.5 *MGD Intake Elevation in Relation to Bottom 12 Ft.

Intake Elevation: 6 Ft. Latitude: 31 deg 29' 22" Longitude: -87 deg 54' 24"

Name of Surface Water Source: Tombigbee River

*** MGD – Million Gallons per Day**

Cooling Water Intake Structure Information

Complete questions 1 and 2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)

1. Does the provider of your source water operate a surface water intake? Yes [ ] No [ ]
   (If yes, continue, if no, go to Section E.)

   a) Name of Provider _____ b)Location of Provider _____

   c) Latitude: _____ Longitude: _____

2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? Yes [ ] No [ ]
   (If yes, go to Section E, if no, continue.)

Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.

3. Is any water withdrawn from the source water used for cooling? Yes [✔] No [ ]

4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? 19.6 %

5. Does the cooling water consist of treated effluent that would otherwise be discharged? Yes [ ] No [✔]
   (If yes, go to Section E, if no, complete questions 6 – 17.)

6. Is the cooling water used in a once-through or closed cycle cooling system? Yes [✔] No [ ]

7. When was the intake installed? October 1964
   (Please provide dates for all major construction/installation of intake components including screens)

8. What is the maximum intake volume? 36,000,000
   (maximum pumping capacity in gallons per day)

9. What is the average intake volume? 21,500,000
   (average intake pump rate in gallons per day average in any 30-day period)

10. How is the intake operated? (e.g., continuously, intermittently, batch) Continuously

11. What is the mesh size of the screen on your intake? Vertical bars with approximately 2.5-inch centers

12. What is the intake screen flow-through area? 120 square feet

13. What is the through screen design intake flow velocity? 0.46 ft/sec

14. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning) Daily manual cleaning with rake

15. Do you have any additional fish detraction technology on your intake? Yes [ ] No [✔]

16. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes [ ] No [✔] (If yes please provide.)

17. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
All solids and liquids stored for use by the mill	Materials are stored throughout mill; all drainage is treated.

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Waste lime, boiler ash, clarifier solids	600 cubic yards per day	Industrial waste landfill (Permit 13-05)

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within 10-foot elevation of Mobile or Baldwin County?

Yes [ ] No [✔] If yes, then complete items A through M below:

	YES	NO
A. Does the project require new construction?	☐	☐
B. Will the project be a source of new air emissions?	☐	☐
C. Does the project involve dredging and/or filling?	☐	☐
Has the Corps of Engineers (COE) permit been received?	☐	☐
Corps Project Number _____		
D. Does the project involve wetlands and/or submersed grassbeds?	☐	☐
E. Are oyster reefs located near the project site? (Include a map showing project and discharge location with respect to oyster reefs)	☐	☐
F. Does the project involve the siting, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?	☐	☐
G. Does the project involve shoreline erosion mitigation?	☐	☐
H. Does the project involve construction on beaches and dunes?	☐	☐
I. Will the project interfere with public access to coastal waters?	☐	☐
J. Does the project lie within the 100-year floodplain?	☐	☐
K. Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
L. Does the project propose to construct a new well or alter an existing well to pump more than 50 GPD?	☐	☐
M. Has the applicable permit been obtained?	☐	☐

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR 131.12 and the Alabama Department of Environmental Management Administrative Code, Section 335-6-10-.04 for antidegradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes [ ] No [✔]
   If yes, complete question 2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes [ ] No [ ]

   If yes, do not complete this section.

If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below and ADEM forms 311 and 313 (attached). Form 313 must be provided for each alternative considered technically viable.

Information required for new or increased discharges to high quality waters:

A. What environmental or public health problem will the discharger be correcting?

B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

C. How much reduction in employment will the discharger be avoiding?

D. How much additional state or local taxes will the discharger be paying?

E. What public service to the community will the discharger be providing?

F. What economic or social benefit will the discharger be providing to the community?

SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there. The EPA application forms are found on the Department's website at http://www.adem.state.al.us/. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS
See ADEM 335-6-6-.08(i) & (j)

SECTION J– RECEIVING WATERS

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL?* (Y / N)
Tombigbee River	Yes - Draft TMDL to be proposed by 2020	No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:
(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);
(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);
(3) Requested interim limitations, if applicable;
(4) Date of final compliance with the TMDL limitations; and,
(5) Any other additional information available to support requested compliance schedule.

SECTION K – APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIAL AS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS" (SEE BELOW).

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT ALL ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE SIGNED: _____

(TYPE OR PRINT)
NAME OF RESPONSIBLE OFFICIAL: Russell Burns

TITLE OF RESPONSIBLE OFFICIAL: Mill Manager

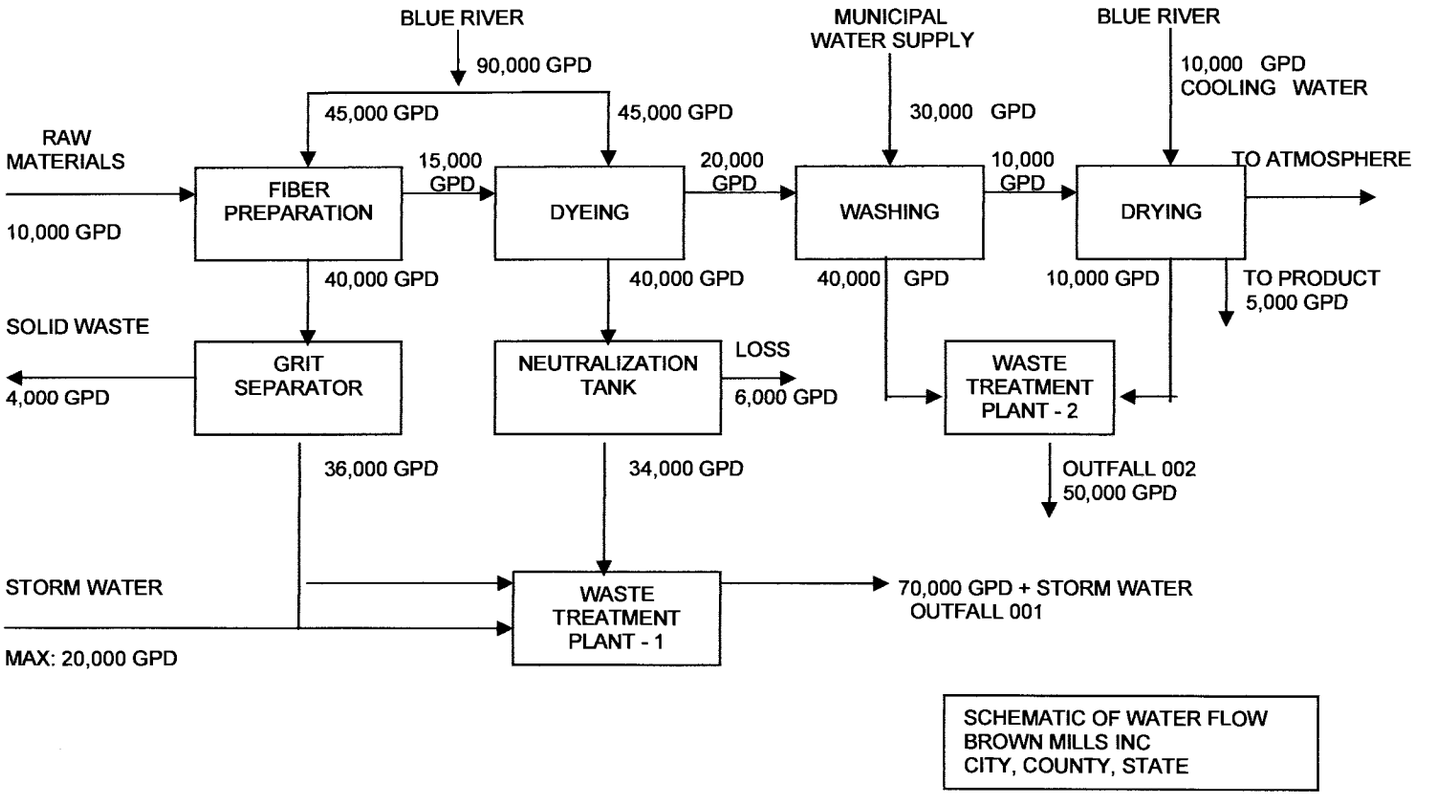
MAILING ADDRESS: 4585 Industrial Road

CITY, STATE, ZIP: Jackson, Alabama 36545 PHONE: (251) 246-8211

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
(b) In the case of a partnership, by a general partner;
(c) In the case of a sole proprietorship, by the proprietor; or
(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

FIGURE 1


BLUE RIVER
90,000 GPD
45,000 GPD
45,000 GPD
MUNICIPAL WATER SUPPLY
30,000 GPD
BLUE RIVER
10,000 GPD COOLING WATER
RAW MATERIALS
10,000 GPD
FIBER PREPARATION
15,000 GPD
DYEING
20,000 GPD
WASHING
10,000 GPD
DRYING
TO ATMOSPHERE
40,000 GPD
40,000 GPD
40,000 GPD
10,000 GPD
TO PRODUCT 5,000 GPD
SOLID WASTE
4,000 GPD
GRIT SEPARATOR
NEUTRALIZATION TANK
LOSS
6,000 GPD
WASTE TREATMENT PLANT - 2
36,000 GPD
34,000 GPD
OUTFALL 002 50,000 GPD
STORM WATER
MAX: 20,000 GPD
WASTE TREATMENT PLANT - 1
70,000 GPD + STORM WATER OUTFALL 001
SCHEMATIC OF WATER FLOW
BROWN MILLS INC
CITY, COUNTY, STATE

Justification for Reduced Monitoring Frequencies

Spivey
Engineering
Solutions, LLC
7956 Vaughn Road Box 373 • Montgomery, Alabama 36116 • (334) 241-0355 • FAX (334) 241-9951

Technical Memorandum

To: Mr. Randy Abston/Boise – Jackson

From: Don Spivey

Date: October 29, 2015

Subject: Performance-Based Reduction of NPDES Permit Monitoring Frequencies
Boise White Paper, LLC – Jackson, Alabama

The purpose of this memorandum is to evaluate the potential to reduce National Pollutant Discharge Elimination System (NPDES) monitoring frequencies for biochemical oxygen demand (BOD), total suspended solids (TSS), and adsorbable organohalogens (AOX) in the discharge effluent from Boise White Paper, LLC (Boise), Jackson, Alabama, and to reduce the monitoring frequency of chloroform in the bleach plant effluent. Boise retained Spivey Engineering Solutions, LLC, to apply the U. S. Environmental Protection Agency's (EPA's) *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to the long-term average effluent data recorded by the Jackson Mill. This memorandum describes the approach taken by Spivey Engineering to assess the potential for reducing the frequency of BOD, TSS, AOX, and chloroform monitoring. The results of Spivey Engineering's evaluation indicate that three days-per-week monitoring of BOD, TSS, and AOX can potentially be reduced to one day-per-week monitoring without increasing the probability of Boise reporting a violation of monthly average BOD, TSS, or AOX in the effluent, and that once every 60 day monitoring of chloroform can be reduced to once per quarter monitoring of the bleach plant outfall without increasing the probability of Boise reporting an exceedance of the monthly average chloroform discharge limit.

Evaluation Approach

Boise's baseline monitoring frequency for BOD, TSS, and AOX is three (3) samples per week. To evaluate the potential for reducing this monitoring frequency, Spivey Engineering applied EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to three years of effluent discharge data compiled by the Jackson Mill's Environmental Department. EPA's interim guidance recommends that a minimum of two years of data be considered in developing the long-term average and standard deviation of the monitoring parameters. Spivey Engineering calculated the mean and standard deviation for BOD, TSS, and AOX in Boise's effluent for the three-year period of October 1, 2012, through September 30, 2015. Spivey Engineering then compared the long-term average BOD, TSS, and AOX to the permitted

monthly discharge limits proposed for Boise's NPDES permit renewal during periods of low river flow (less than 2,000 cubic feet per second) in the Tombigbee River.

Boise's baseline monitoring frequency for chloroform is one (1) sample every two months. Spivey Engineering applied EPA's interim guidance to five years of bleach plant effluent data compiled by the Jackson Mill's Environmental Department. Spivey Engineering calculated the mean and standard deviation for chloroform in Boise's bleach plant effluent for the five-year period of October 1, 2010, through September 30, 2015. Spivey Engineering then compared the long-term average chloroform to the permitted monthly discharge limit proposed for Boise's NPDES permit renewal.

Results of Evaluation

Table 1 of EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) identifies the monitoring frequency for which a permittee may be eligible based on the ratio of the long-term average pollutant mass discharged to the permitted monthly average discharge rate. Figure 1 shows that Boise's ratio of long-term average BOD (November through April) to permitted monthly average BOD is 37.7 percent. The ratio of long-term average TSS to permitted monthly average TSS is 16.5 percent. The ratio of long-term average AOX to permitted monthly average AOX is 35.0 percent. For BOD (November through April), TSS, and AOX, the ratios of long-term average discharge loading to permitted monthly average discharge loading are well below EPA's 49 percent threshold (from Table 1 of the interim guidance) for reducing monitoring frequency from three samples per week to one sample per week. The ratio of long-term average chloroform to permitted monthly average chloroform is 18.6 percent. For chloroform, the ratio of long-term average bleach plant effluent loading to permitted monthly average loading is well below EPA's 49 percent threshold (from Table 1 of the interim guidance) for reducing monitoring frequency from one sample every 60 days to one sample per quarter.

Recommendations

Spivey Engineering's evaluation of the long-term average BOD (November through April), TSS, and AOX loadings in Boise's effluent therefore demonstrates that BOD (November through April), TSS, and AOX monitoring frequencies can be reduced from three samples per week to one sample per week without increasing the probability of Boise reporting a violation of monthly average BOD, TSS, or AOX in the effluent. The monitoring frequency for BOD (May through October) should remain unchanged (three samples per week). Furthermore, the chloroform monitoring frequency can be reduced to once per calendar quarter without increasing the probability of Boise reporting a violation of monthly average chloroform in the bleach plant effluent. Spivey therefore recommends that Boise incorporate these findings into the NPDES permit renewal application to ADEM.

Figure 1. Evaluation of Performance-Based Reduction of Effluent Monitoring Frequencies
Boise White Paper, LLC - Jackson, Alabama

	Long Term Average (LTA)	Standard Deviation of LTA	Monthly Permit Limit	LTA/Permit Limit (%)	samples/ month (N)	sqrt(N)	SD/sqrt(N)	CV (%)	normdist (P)	1-P	%(1-P)
AOX	388	117	1107.6	35.0	4	2.0	82.73	30.2	1.000000	0.0000	0E+00
Chloroform	1.37	0.84	7.36	18.6	0.3333	0.6	1.11	61.3	1.000000	0.0000	3E-06

$$P(M_N > \mu_l) = P\left(\frac{M_N - \mu}{\frac{\sigma}{\sqrt{N}}} > \frac{\mu_l - \mu}{\frac{\sigma}{\sqrt{N}}}\right) = 1 - \phi\left(\frac{\mu_l - \mu}{\frac{\sigma}{\sqrt{N}}}\right),$$

= 1-normdist[(Monthly Limit-LTA)/(SD/SQRT(N))]

Enter the LTA, Standard Deviation, Monthly Permit Limit and desired monthly sampling frequency. (Highlighted)
%1-P is the increased probability of reporting a violation for the desired monitoring frequency.
If %1-P > 1% adjust the monitoring frequency.

Attachment A. Three Years Monitoring Data

Date	OUTFALL DSN 001				
	FLOW	pH	BOD5	TSS	AOX
	MGD	s.u.	ppd	ppd	ppd
10/01/12	21.49	7.50	6,930	11,030	520
10/02/12	21.33	7.50	6,984	6,185	451
10/03/12					
10/04/12	21.01	7.50	7,562	5,881	315
10/05/12					
10/06/12					
10/07/12					
10/08/12	19.77	7.50	6,327	6,063	264
10/09/12	19.57	7.70	6,213	3,718	506
10/10/12					
10/11/12	19.38	7.50	5,718	646	404
10/12/12					
10/13/12					
10/14/12					
10/15/12	20.22	7.50	4,549	741	506
10/16/12	20.41	7.40	4,797	612	272
10/17/12					
10/18/12	22.45	7.60	4,771	524	374
10/19/12					
10/20/12					
10/21/12					
10/22/12	22.13	7.60	4,425	1,549	461
10/23/12	21.92	7.60	5,096	365	420
10/24/12					
10/25/12	21.35	7.50	6,724	1,138	445
10/26/12					
10/27/12					
10/28/12					
10/29/12	17.14	7.50	6,344	343	429
10/30/12	15.94	7.50	6,536	1,913	279
10/31/12					
11/01/12	15.76	7.50	4,963	1,891	306
11/02/12					
11/03/12					
11/04/12					
11/05/12	12.84	7.60	3,339	856	311
11/06/12	12.50	7.40	2,813	292	261
11/07/12					
11/08/12	9.48	7.40	1,920	316	174
11/09/12					
11/10/12					
11/11/12					
11/12/12	11.08	7.40	1,551	259	213
11/13/12	12.42	7.50	2,111	248	238
11/14/12					
11/15/12	13.86	7.30	2,564	416	289
11/16/12					
11/17/12					
11/18/12					
11/19/12	15.93	7.20	3,784	425	252
11/20/12	16.29	7.20	5,171	326	299
11/21/12					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
11/22/12	17.18	7.20	6,244	401	344
11/23/12					
11/24/12					
11/25/12					
11/26/12	15.62	7.40	5,232	364	274
11/27/12	14.07	7.50	5,134	188	258
11/28/12					
11/29/12	14.20	7.60	5,011	994	261
11/30/12					
12/01/12					
12/02/12					
12/03/12	21.94	7.40	6,747	731	384
12/04/12	22.11	7.40	6,965	590	406
12/05/12					
12/06/12	20.89	7.40	7,835	488	349
12/07/12					
12/08/12					
12/09/12					
12/10/12	19.86	7.50	7,549	2,914	364
12/11/12	19.72	7.50	8,086	986	378
12/12/12					
12/13/12	19.84	7.60	7,738	6,415	381
12/14/12					
12/15/12					
12/16/12					
12/17/12	19.80	7.50	7,919	1,650	396
12/18/12	19.90	7.50	7,960	1,194	365
12/19/12					
12/20/12	19.52	7.50	6,735	2,213	358
12/21/12					
12/22/12					
12/23/12					
12/24/12	18.34	7.50	4,171	489	367
12/25/12	19.00	7.60	5,938	1,583	364
12/26/12					
12/27/12	20.23	7.80	6,271	472	405
12/28/12					
12/29/12					
12/30/12					
12/31/12	19.76	7.80	8,200	7,245	396
01/01/13	18.65	7.80	6,994	9,636	187
01/02/13					
01/03/13	21.66	7.50	8,122	9,097	199
01/04/13					
01/05/13					
01/06/13					
01/07/13	23.00	7.50	8,280	10,120	192
01/08/13	23.38	7.50	8,300	16,366	234
01/09/13					
01/10/13	20.45	7.50	3,936	4,703	226
01/11/13					
01/12/13					
01/13/13					
01/14/13	21.91	7.40	7,230	1,534	493

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
01/15/13	21.44	7.30	7,825	3,287	393
01/16/13					
01/17/13	10.51	7.40	3,783	7,146	149
01/18/13					
01/19/13					
01/20/13					
01/21/13	20.59	7.40	7,514	4,460	446
01/22/13	21.89	7.30	7,771	10,653	511
01/23/13					
01/24/13	18.82	7.40	6,587	1,192	408
01/25/13					
01/26/13					
01/27/13					
01/28/13	38.35	7.20	15,339	19,430	928
01/29/13	28.10	7.40	10,959	13,206	562
01/30/13					
01/31/13	27.83	7.50	8,558	11,967	511
02/01/13					
02/02/13					
02/03/13					
02/04/13	21.19	7.40	6,251	5,509	566
02/05/13	21.05	7.40	6,594	7,999	474
02/06/13					
02/07/13	23.11	7.40	4,738	8,474	501
02/08/13					
02/09/13					
02/10/13					
02/11/13	21.71	7.40	9,878	9,986	507
02/12/13	15.89	7.30	8,739	5,826	371
02/13/13					
02/14/13	26.24	7.30	12,989	11,196	613
02/15/13					
02/16/13					
02/17/13					
02/18/13	22.32	7.40	11,718	5,208	558
02/19/13	21.41	7.30	10,170	5,709	592
02/20/13					
02/21/13	21.41	7.30	9,742	4,567	536
02/22/13					
02/23/13					
02/24/13					
02/25/13	8.62	7.40	3,232	230	144
02/26/13	17.13	7.50	6,766	3,597	286
02/27/13					
02/28/13	20.69	7.60	7,241	483	397
03/01/13					
03/02/13					
03/03/13					
03/04/13	23.44	7.40	8,614	6,094	665
03/05/13	22.87	7.60	7,489	1,677	553
03/06/13					
03/07/13	26.80	7.40	10,720	625	693
03/08/13					
03/09/13					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
03/10/13					
03/11/13	25.15	7.50	14,081	11,399	587
03/12/13	25.31	7.50	13,034	10,461	570
03/13/13					
03/14/13	27.20	7.50	12,919	12,239	499
03/15/13					
03/16/13					
03/17/13					
03/18/13	20.57	7.50	8,022	2,057	480
03/19/13	25.20	7.20	9,197	2,856	588
03/20/13					
03/21/13	18.64	7.30	6,351	1,429	342
03/22/13					
03/23/13					
03/24/13	17.88			6,497	
03/25/13	22.83	7.20	6,164	3,120	609
03/26/13	18.77	7.30	4,740	2,065	501
03/27/13					
03/28/13	12.83	7.30	3,111	1,539	374
03/29/13					
03/30/13					
03/31/13					
04/01/13	26.65	7.10	5,130	533	556
04/02/13	23.82	7.20	4,288	476	517
04/03/13	19.70	7.20	3,004	1,182	
04/04/13	25.47	7.20	4,139	1,019	510
04/05/13					
04/06/13					
04/07/13					
04/08/13	26.40	7.10	4,421	1,760	793
04/09/13	26.46	7.20	4,564	2,734	839
04/10/13					
04/11/13	26.03	7.40	5,726	2,603	738
04/12/13					
04/13/13					
04/14/13					
04/15/13					
04/16/13	15.55	7.30	1,983	6,894	298
04/17/13	16.14	7.00	3,559	1,883	444
04/18/13	14.73	7.20	2,799	933	568
04/19/13					
04/20/13					
04/21/13					
04/22/13	20.68	7.40	3,464	1,999	397
04/23/13	20.70	7.30	3,260	1,035	449
04/24/13					
04/25/13	23.15		3,704	849	521
04/26/13					
04/27/13					
04/28/13					
04/29/13	20.64	7.60	4,334	963	482
04/30/13	19.89	7.60	3,431	1,127	481
05/01/13					
05/02/13	16.12	7.50	2,821	752	390

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
05/03/13					
05/04/13					
05/05/13					
05/06/13	20.61	7.20	2,989	824	395
05/07/13	21.05	7.30	3,526	842	439
05/08/13					
05/09/13	20.01	7.10	3,001	400	451
05/10/13					
05/11/13					
05/12/13					
05/13/13	23.62	7.10	4,960	5,826	471
05/14/13	23.46	7.20	3,812	7,195	430
05/15/13					
05/16/13	24.01	7.30	4,202	6,403	436
05/17/13					
05/18/13					
05/19/13					
05/20/13	18.49	7.30	2,080	4,745	416
05/21/13	18.20	7.20	2,639	11,405	379
05/22/13					
05/23/13	17.97	7.40	2,471	3,175	405
05/24/13					
05/25/13					
05/26/13					
05/27/13	18.12	7.40	3,487	785	423
05/28/13	18.28	7.40	3,793	426	412
05/29/13					
05/30/13	18.67	7.50	3,781	498	420
05/31/13					
06/01/13					
06/02/13					
06/03/13	16.14	7.40	5,407	2,851	256
06/04/13	18.85	7.30	7,540	377	346
06/05/13					
06/06/13	19.39	7.30	6,787	2,004	340
06/07/13					
06/08/13					
06/09/13					
06/10/13	19.61	7.30	5,784	2,614	343
06/11/13	22.40	7.30	5,567	5,675	336
06/12/13					
06/13/13	23.23	7.30	4,994	2,323	407
06/14/13					
06/15/13					
06/16/13					
06/17/13	19.34	7.40	5,078	1,612	501
06/18/13	19.23	7.30	4,904	4,872	561
06/19/13					
06/20/13	18.93	7.50	3,739	4,165	568
06/21/13					
06/22/13					
06/23/13					
06/24/13	15.73	7.40	4,562	1,678	446
06/25/13	15.62	7.50	5,623	3,957	417

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
06/26/13					
06/27/13	13.67	7.50	2,801	5,466	342
06/28/13					
06/29/13					
06/30/13					
07/01/13	18.59	7.60	4,788	4,153	264
07/02/13	15.42	7.60	5,936	5,294	362
07/03/13					
07/04/13	14.73	7.50	5,303	5,303	283
07/05/13					
07/06/13					
07/07/13					
07/08/13	21.54	7.50	6,192	6,533	359
07/09/13	22.07	7.40	5,684	7,358	442
07/10/13					
07/11/13	22.21	7.40	5,553	4,591	401
07/12/13					
07/13/13					
07/14/13					
07/15/13	22.82	7.40	3,879	1,901	362
07/16/13	22.30	7.40	5,016	6,540	372
07/17/13					
07/18/13	22.21	7.50	5,276	8,737	346
07/19/13					
07/20/13					
07/21/13					
07/22/13	21.75	7.50	4,296	6,235	308
07/23/13	21.77	7.60	5,443	6,894	309
07/24/13					
07/25/13	23.59	7.50	4,246	1,258	315
07/26/13					
07/27/13					
07/28/13					
07/29/13	21.87	7.60	3,116	4,592	419
07/30/13	21.19	7.50	5,139	1,342	495
07/31/13					
08/01/13	20.45	7.60	4,908	3,681	446
08/02/13					
08/03/13					
08/04/13					
08/05/13	18.74	7.60	4,217	1,249	328
08/06/13	17.88	7.50	5,096	4,888	404
08/07/13					
08/08/13	17.05	7.40	4,433	31,255	385
08/09/13					
08/10/13					
08/11/13					
08/12/13	17.88	7.50	4,292	29,803	369
08/13/13	19.58	7.40	5,385	40,732	394
08/14/13					
08/15/13	20.45	7.30	5,419	5,862	417
08/16/13					
08/17/13					
08/18/13					

Date	OUTFALL DSN 001				
	FLOW	pH	BOD5	TSS	AOX
	MGD	s.u.	ppd	ppd	ppd
08/19/13	20.45	7.40	4,345	4,976	448
08/20/13	20.45	7.40	4,652	5,248	460
08/21/13					
08/22/13	18.73	7.50	3,511	5,368	341
08/23/13					
08/24/13					
08/25/13					
08/26/13	19.23	7.30	4,374	2,564	401
08/27/13	19.23	7.30	4,614	769	337
08/28/13					
08/29/13	18.29	7.40	4,710	244	366
08/30/13					
08/31/13					
09/01/13					
09/02/13	18.40	7.30	5,197	675	353
09/03/13	16.46	7.50	4,156	604	329
09/04/13					
09/05/13	18.50	7.30	4,161	123	370
09/06/13					
09/07/13					
09/08/13					
09/09/13	16.14	7.40	2,422	431	310
09/10/13	16.36	7.30	2,945	382	382
09/11/13					
09/12/13	18.16	7.30	3,268	545	394
09/13/13					
09/14/13					
09/15/13					
09/16/13	17.77	7.30	2,354	237	395
09/17/13	17.75	7.40	3,327	2,011	355
09/18/13					
09/19/13	18.13	7.30	2,947	1,934	422
09/20/13					
09/21/13					
09/22/13					
09/23/13	20.48	7.30	4,404	3,687	427
09/24/13	20.29	7.40	5,275	3,043	457
09/25/13					
09/26/13	20.28	7.40	5,628	541	491
09/27/13					
09/28/13					
09/29/13					
09/30/13	19.14	7.40	5,073	510	463
10/01/13	15.42	7.40	4,587	1,490	337
10/02/13					
10/03/13	18.04	7.50	5,549	481	316
10/04/13					
10/05/13					
10/06/13					
10/07/13	17.67	7.60	4,640	1,885	413
10/08/13	19.58	7.50	5,679	783	359
10/09/13					
10/10/13	19.58	7.40	5,189	1,501	376
10/11/13					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
10/12/13					
10/13/13					
10/14/13	17.99	7.30	4,364	1,979	300
10/15/13	17.75	7.40	4,749	1,302	296
10/16/13					
10/17/13	15.83	7.60	3,680	158	251
10/18/13					
10/19/13					
10/20/13					
10/21/13	17.11	7.40	3,207	2,452	385
10/22/13	17.05	7.60	3,282	1,932	375
10/23/13					
10/24/13	17.14	7.50	2,571	2,285	357
10/25/13					
10/26/13					
10/27/13					
10/28/13	14.35	7.60	4,378	1,100	331
10/29/13	14.09	7.60	3,733	2,160	323
10/30/13					
10/31/13	14.21	7.40	4,901	1,800	360
11/01/13					
11/02/13					
11/03/13					
11/04/13	15.75	7.50	3,858	2,939	302
11/05/13	16.35	7.50	3,555	1,907	314
11/06/13					
11/07/13	15.26	7.50	3,549	712	306
11/08/13					
11/09/13					
11/10/13					
11/11/13	12.06	7.40	2,623	2,211	241
11/12/13	14.27	7.50	2,997	1,094	250
11/13/13					
11/14/13	16.62	7.50	2,784	2,548	360
11/15/13					
11/16/13					
11/17/13					
11/18/13	19.07	7.30	2,812	318	223
11/19/13	19.08	7.30	2,785	572	270
11/20/13					
11/21/13	19.32	7.40	2,657	515	274
11/22/13					
11/23/13					
11/24/13					
11/25/13	18.33	7.40	3,438	367	260
11/26/13	18.61	7.40	3,862	1,179	279
11/27/13					
11/28/13	18.55	7.30	4,360	557	279
11/29/13					
11/30/13					
12/01/13					
12/02/13	18.83	7.40	4,378	1,569	424
12/03/13	18.91	7.40	5,058	1,135	426
12/04/13					

Date	OUTFALL DSN 001				
	FLOW	pH	BOD5	TSS	AOX
	MGD	s.u.	ppd	ppd	ppd
12/05/13	18.97	7.40	6,070	1,265	427
12/06/13					
12/07/13					
12/08/13					
12/09/13	19.11	7.40	3,775	765	399
12/10/13	18.96	7.50	4,125	316	395
12/11/13					
12/12/13	23.15	7.40	6,483	309	483
12/13/13					
12/14/13					
12/15/13					
12/16/13	19.61	7.50	6,129	1,242	458
12/17/13	20.18	7.50	6,660	404	438
12/18/13					
12/19/13	20.80	7.30	8,111	971	486
12/20/13					
12/21/13					
12/22/13					
12/23/13	21.89	7.40	7,006	1,533	438
12/24/13	23.62	7.10	8,267	2,922	453
12/25/13					
12/26/13	24.28	7.40	8,984	971	506
12/27/13					
12/28/13					
12/29/13					
12/30/13	19.57	7.40	7,436	848	375
12/31/13	19.98	7.40	7,093	200	383
01/01/14					
01/02/14	24.02	7.50	8,406	4,643	461
01/03/14					
01/04/14					
01/05/14					
01/06/14	19.57	7.60	5,674	391	457
01/07/14	19.29	7.40	6,693	772	450
01/08/14					
01/09/14	20.08	7.40	7,581	1,004	519
01/10/14					
01/11/14					
01/12/14					
01/13/14	21.14	7.30	10,251	3,100	529
01/14/14	21.91	7.30	10,627	2,264	475
01/15/14					
01/16/14	22.72	7.30	11,132	682	493
01/17/14					
01/18/14					
01/19/14					
01/20/14	21.20	7.40	7,736	2,331	442
01/21/14	20.94	7.40	7,852	628	437
01/22/14					
01/23/14	20.40	7.50	8,059	884	493
01/24/14					
01/25/14					
01/26/14					
01/27/14	20.45	7.60	10,326	3,681	449

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
01/28/14	20.45	7.40	12,473	9,338	418
01/29/14					
01/30/14	18.49	7.80	11,093	2,527	385
01/31/14					
02/01/14					
02/02/14					
02/03/14	19.60	7.60	7,642	980	474
02/04/14	19.47	7.50	6,475	909	455
02/05/14					
02/06/14	18.24	7.60	6,429	2,553	380
02/07/14					
02/08/14					
02/09/14					
02/10/14	25.62	7.50	9,991	2,391	556
02/11/14	15.50	7.60	5,890	775	310
02/12/14					
02/13/14	26.26	7.40	9,322	613	526
02/14/14					
02/15/14					
02/16/14					
02/17/14	27.01	7.60	9,183	720	465
02/18/14	22.34	7.60	8,489	2,159	391
02/19/14	21.20	7.70	7,367	5,653	
02/20/14	22.78	7.70	10,139	304	380
02/21/14					
02/22/14					
02/23/14					
02/24/14	21.62	7.50	9,512	2,018	379
02/25/14	22.58	7.50	11,628	1,656	358
02/26/14					
02/27/14	23.50	7.60	10,457	1,175	412
02/28/14					
03/01/14					
03/02/14					
03/03/14	19.65	7.60	6,965	786	508
03/04/14	19.74	7.60	7,135	790	412
03/05/14					
03/06/14	20.21	7.60	7,176	741	421
03/07/14					
03/08/14					
03/09/14					
03/10/14	22.35	7.50	8,271	1,043	336
03/11/14	22.16	7.50	7,201	1,846	351
03/12/14					
03/13/14	22.09	7.70	7,345	515	295
03/14/14					
03/15/14					
03/16/14					
03/17/14	21.58	7.60	6,041	575	270
03/18/14	26.31	7.60	8,879	6,928	329
03/19/14					
03/20/14	22.80	7.60	7,843	1,672	304
03/21/14					
03/22/14					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
03/23/14					
03/24/14	21.04	7.70	6,574	2,033	351
03/25/14	21.67	7.70	7,584	1,228	343
03/26/14					
03/27/14	23.40	7.70	8,015	1,248	403
03/28/14					
03/29/14					
03/30/14					
03/31/14	22.24	7.60	6,060	297	390
04/01/14	23.03	7.70	7,082	1,535	365
04/02/14					
04/03/14	23.96	7.50	8,026	1,917	360
04/04/14					
04/05/14					
04/06/14					
04/07/14	21.55	7.80	5,818	1,293	359
04/08/14	21.31	7.60	6,659	639	373
04/09/14					
04/10/14	17.39	7.60	5,434	290	360
04/11/14					
04/12/14					
04/13/14					
04/14/14	19.31	7.60	6,469	1,223	322
04/15/14	23.98	7.70	7,733	320	376
04/16/14					
04/17/14	18.20	7.70	6,370	2,487	410
04/18/14					
04/19/14					
04/20/14					
04/21/14	24.15	7.60	8,211	2,334	342
04/22/14	25.12	7.60	9,169	1,256	314
04/23/14					
04/24/14	21.01	7.80	8,089	2,591	280
04/25/14					
04/26/14					
04/27/14					
04/28/14	18.35	7.90	4,358	2,997	199
04/29/14	21.96	7.60	6,204	2,562	311
04/30/14					
05/01/14	23.66	7.70	6,092	2,839	315
05/02/14					
05/03/14					
05/04/14					
05/05/14	24.09	7.70	6,745	321	603
05/06/14	27.16	7.70	8,352	1,720	612
05/07/14					
05/08/14	27.70	7.80	8,587	3,324	647
05/09/14					
05/10/14					
05/11/14					
05/12/14	24.02	7.80	8,346	2,722	547
05/13/14	23.82	7.90	9,243	2,120	556
05/14/14					
05/15/14	22.96	7.80	8,609	3,214	460

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
05/16/14					
05/17/14					
05/18/14					
05/19/14	21.64	7.80	6,599	7,645	415
05/20/14	21.33	7.80	7,359	6,613	409
05/21/14					
05/22/14	20.85	7.70	7,611	5,630	400
05/23/14					
05/24/14					
05/25/14					
05/26/14	20.47	7.60	5,935	5,935	324
05/27/14	16.05	7.70	4,695	5,457	228
05/28/14					
05/29/14	20.72	7.70	5,386	8,148	276
05/30/14					
05/31/14					
06/01/14					
06/02/14	21.80	7.70	4,961	1,163	382
06/03/14	22.11	7.70	5,473	2,064	350
06/04/14					
06/05/14	19.66	7.70	4,717	1,966	344
06/06/14					
06/07/14					
06/08/14					
06/09/14	23.13	7.70	4,684	2,159	386
06/10/14	23.63	7.70	6,263	2,521	355
06/11/14					
06/12/14	23.37	7.70	5,141	8,257	409
06/13/14					
06/14/14					
06/15/14					
06/16/14	20.59	7.80	3,860	6,932	378
06/17/14	20.25	7.70	4,607	9,247	338
06/18/14					
06/19/14	20.33	7.70	4,778	6,778	356
06/20/14					
06/21/14					
06/22/14					
06/23/14	20.14	7.80	4,532	8,058	336
06/24/14	19.90	7.80	4,030	6,833	349
06/25/14					
06/26/14	21.46	7.60	4,132	7,226	340
06/27/14					
06/28/14					
06/29/14					
06/30/14	18.75	7.60	4,173	5,001	344
07/01/14	20.55	7.50	3,545	5,001	309
07/02/14					
07/03/14	18.40	7.70	2,347	3,313	276
07/04/14					
07/05/14					
07/06/14					
07/07/14	7.87	7.60	5,074	3,566	92
07/08/14	6.13	7.60	5,822	4,086	72

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
07/09/14					
07/10/14	5.16	7.70	4,515	2,924	60
07/11/14					
07/12/14					
07/13/14					
07/14/14	11.36	7.80	5,739	7,160	
07/15/14	11.28	7.90	4,174	6,957	151
07/16/14					
07/17/14	17.76	7.70	6,393	4,735	252
07/18/14					
07/19/14					
07/20/14					
07/21/14	26.83	7.60	7,377	9,926	425
07/22/14	28.05	7.70	8,276	12,157	445
07/23/14					
07/24/14	26.60	7.80	6,849	11,259	421
07/25/14					
07/26/14					
07/27/14					
07/28/14	17.82	7.70	3,832	8,436	372
07/29/14	15.51	7.70	3,490	4,498	259
07/30/14					
07/31/14	17.59	7.80	3,033	4,514	293
08/01/14					
08/02/14					
08/03/14					
08/04/14	18.34	7.70	3,668	5,502	321
08/05/14	18.13	7.90	3,400	2,659	272
08/06/14					
08/07/14	18.00	7.70	4,094	3,659	360
08/08/14					
08/09/14					
08/10/14					
08/11/14	20.84	7.70	3,750	7,362	295
08/12/14	20.53	7.70	4,978	17,517	291
08/13/14					
08/14/14	20.25	7.70	4,151	38,136	287
08/15/14					
08/16/14					
08/17/14					
08/18/14	19.18	7.50	2,972	3,771	288
08/19/14	19.08	7.60	3,673	1,590	271
08/20/14					
08/21/14	19.08	7.60	3,721	3,117	286
08/22/14					
08/23/14					
08/24/14					
08/25/14	18.91	7.70	1,938	3,844	363
08/26/14	19.04	7.60	2,618	3,110	318
08/27/14					
08/28/14	19.09	7.50	3,961	2,864	318
08/29/14					
08/30/14					
08/31/14					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
09/01/14	19.73	7.70	3,404	2,762	329
09/02/14	20.37	7.70	3,412	2,513	323
09/03/14					
09/04/14	21.23	7.70	3,608	13,797	372
09/05/14					
09/06/14					
09/07/14					
09/08/14	18.49	7.60	3,744	5,362	401
09/09/14	21.44	7.70	4,717	2,858	519
09/10/14					
09/11/14	21.09	7.70	5,008	5,201	369
09/12/14					
09/13/14					
09/14/14					
09/15/14	20.71	7.70	3,572	3,659	415
09/16/14	19.92	7.60	3,686	3,520	432
09/17/14					
09/18/14	19.72	7.70	3,007	2,432	526
09/19/14					
09/20/14					
09/21/14					
09/22/14	19.56	7.60	2,005	4,434	457
09/23/14	19.66	7.60	3,097	3,343	541
09/24/14					
09/25/14	19.37	7.40	3,147	4,260	454
09/26/14					
09/27/14					
09/28/14					
09/29/14	20.04	7.60	3,356	5,076	468
09/30/14	20.17	7.60	3,781	6,050	437
10/01/14					
10/02/14	20.41	7.80	4,542	5,103	426
10/03/14					
10/04/14					
10/05/14					
10/06/14	22.58	7.70	2,597	5,345	433
10/07/14	22.39	7.60	3,582	5,000	485
10/08/14					
10/09/14	20.90	7.70	3,449	5,017	471
10/10/14					
10/11/14					
10/12/14					
10/13/14	21.83	7.70	2,783	4,511	473
10/14/14	22.56	7.80	3,498	4,663	339
10/15/14					
10/16/14	23.71	7.80	3,615	4,662	336
10/17/14					
10/18/14					
10/19/14					
10/20/14	21.72	7.70	4,180	5,646	235
10/21/14	21.26	7.60	3,455	5,316	248
10/22/14					
10/23/14	18.85	7.70	3,299	3,959	236
10/24/14					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
10/25/14					
10/26/14					
10/27/14	18.74	7.70	4,076	4,497	266
10/28/14	18.74	7.70	4,591	5,310	281
10/29/14					
10/30/14	18.57	7.60	4,874	5,818	310
10/31/14					
11/01/14					
11/02/14					
11/03/14	16.74	7.70	2,595	4,465	335
11/04/14	11.27	7.60	1,859	3,869	197
11/05/14					
11/06/14	4.88	7.60	1,000	1,333	110
11/07/14					
11/08/14					
11/09/14					
11/10/14	15.76	7.70	5,636	10,299	263
11/11/14	18.35	7.70	3,624	4,527	321
11/12/14					
11/13/14	18.02	7.60	3,964	5,706	255
11/14/14					
11/15/14					
11/16/14					
11/17/14	18.88	7.60	6,467	9,378	315
11/18/14	18.85	7.50	6,362	8,294	299
11/19/14					
11/20/14	19.93	7.50	7,174	9,233	532
11/21/14					
11/22/14					
11/23/14					
11/24/14	21.15	7.60	6,714	8,318	617
11/25/14	20.99	7.50	6,298	7,628	648
11/26/14					
11/27/14	20.61	7.50	7,935	3,847	688
11/28/14					
11/29/14					
11/30/14					
12/01/14	21.50	7.60	8,599	7,954	359
12/02/14	21.51	7.50	9,251	7,745	933
12/03/14					
12/04/14	21.50	7.60	10,106	7,669	717
12/05/14					
12/06/14					
12/07/14					
12/08/14	20.67	7.40	7,545	6,408	552
12/09/14	20.61	7.60	8,861	6,526	636
12/10/14					
12/11/14	18.97	7.50	7,397	4,868	237
12/12/14					
12/13/14					
12/14/14					
12/15/14	20.31	7.50	8,934	8,867	339
12/16/14	20.09	7.60	8,940	8,304	452
12/17/14					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
12/18/14	18.85	7.50	8,578	7,604	236
12/19/14					
12/20/14					
12/21/14					
12/22/14	18.81	7.70	7,901	5,831	340
12/23/14	20.15	7.70	7,557	605	353
12/24/14					
12/25/14	21.13	7.60	7,924	3,944	370
12/26/14					
12/27/14					
12/28/14					
12/29/14	22.49	7.50	6,859	8,321	394
12/30/14	22.22	7.60	7,555	5,037	389
12/31/14					
01/01/15	19.90	7.60	7,313	5,505	431
01/02/15					
01/03/15					
01/04/15					
01/05/15	24.70	7.60	8,028	7,492	680
01/06/15	23.27	7.40	7,854	7,214	475
01/07/15					
01/08/15	23.02	7.50	8,863	4,374	538
01/09/15					
01/10/15					
01/11/15					
01/12/15	24.55	7.60	7,980	9,331	553
01/13/15	33.26	7.40	13,969	12,195	804
01/14/15					
01/15/15	20.53	7.60	9,033	5,885	428
01/16/15					
01/17/15					
01/18/15					
01/19/15	22.53	7.50	10,251	9,762	470
01/20/15	22.37	7.40	11,298	9,844	485
01/21/15					
01/22/15	21.91	7.50	11,285	9,568	493
01/23/15					
01/24/15					
01/25/15					
01/26/15	23.15	7.50	9,491	8,410	309
01/27/15	22.93	7.50	10,546	8,865	210
01/28/15					
01/29/15	22.21	7.50	10,107	9,626	220
01/30/15					
01/31/15					
02/01/15					
02/02/15	20.81	7.60	9,988	8,670	503
02/03/15	20.72	7.50	10,877	6,630	484
02/04/15					
02/05/15	21.17	7.70	13,123	7,620	388
02/06/15					
02/07/15					
02/08/15					
02/09/15	20.13	7.80	10,163	9,056	117

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
02/10/15	18.70	7.40	9,256	9,723	94
02/11/15	18.73		9,831		
02/12/15	18.95	7.50	8,907	5,243	221
02/13/15					
02/14/15					
02/15/15					
02/16/15	18.73	7.70	9,176	7,053	171
02/17/15	19.15	7.70	11,894	11,492	52
02/18/15					
02/19/15	18.73	7.80	10,018	9,176	36
02/20/15					
02/21/15					
02/22/15					
02/23/15	19.70	7.70	8,965	6,831	378
02/24/15	21.24		10,620	8,425	425
02/25/15					
02/26/15	18.30	7.70	8,143	2,623	229
02/27/15					
02/28/15					
03/01/15					
03/02/15	24.27	7.60	12,254	9,625	587
03/03/15	28.18	7.60	13,949	9,863	517
03/04/15					
03/05/15	20.87	7.60	9,705	7,652	470
03/06/15					
03/07/15					
03/08/15					
03/09/15	24.17		10,634	8,540	383
03/10/15	20.41	7.50	9,286	7,551	358
03/11/15					
03/12/15	19.19	7.60	7,292	5,629	320
03/13/15					
03/14/15					
03/15/15					
03/16/15	22.81	7.60	9,238	7,223	381
03/17/15	23.14	7.70	12,495	7,096	483
03/18/15					
03/19/15	21.84	7.70	9,718	8,080	437
03/20/15					
03/21/15					
03/22/15					
03/23/15	22.35	7.70	8,381	12,366	392
03/24/15	23.69	7.70	10,068	15,477	435
03/25/15					
03/26/15	19.94	7.70	7,477	4,985	383
03/27/15					
03/28/15					
03/29/15					
03/30/15	19.92	7.70	5,976	8,831	366
03/31/15	20.98	7.70	6,713	5,874	385
04/01/15					
04/02/15	22.54	7.90	7,212	7,512	414
04/03/15					
04/04/15					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
04/05/15					
04/06/15	21.53	7.80	6,944	7,106	404
04/07/15	21.58	7.70	7,228	9,062	452
04/08/15					
04/09/15	23.28	7.60	7,916	8,304	501
04/10/15					
04/11/15					
04/12/15					
04/13/15	23.81	7.70	8,275	7,699	451
04/14/15	21.61	7.70	7,455	7,779	414
04/15/15					
04/16/15	18.26	7.70	5,934	5,052	353
04/17/15					
04/18/15					
04/19/15					
04/20/15	19.36	7.60	6,437	5,550	276
04/21/15	18.80	7.60	4,512	1,316	406
04/22/15					
04/23/15	18.40	7.50	4,324	4,845	364
04/24/15					
04/25/15					
04/26/15					
04/27/15	22.79	7.50	3,874	12,534	433
04/28/15	21.82	7.50	3,055	6,618	415
04/29/15					
04/30/15	18.09	7.50	2,623	5,186	355
05/01/15					
05/02/15					
05/03/15					
05/04/15	23.79	7.60	3,390	7,692	522
05/05/15	23.12	7.60	3,236	1,079	443
05/06/15					
05/07/15	22.14	7.50	3,321	738	432
05/08/15					
05/09/15					
05/10/15					
05/11/15	18.26	7.60	2,282	4,808	365
05/12/15	18.27	7.60	2,831	4,323	411
05/13/15					
05/14/15	18.06	7.60	2,528	8,487	358
05/15/15					
05/16/15					
05/17/15					
05/18/15	22.15	7.70	4,153	7,235	449
05/19/15	21.63	7.60	3,515	2,235	420
05/20/15					
05/21/15	21.02	7.60	2,838	4,274	412
05/22/15					
05/23/15					
05/24/15					
05/25/15	20.60	7.40	2,729	3,913	507
05/26/15	26.96	7.30	2,696	6,110	535
05/27/15					
05/28/15	19.73	7.50	1,743	4,472	383

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
05/29/15					
05/30/15					
05/31/15					
06/01/15	23.54	7.40	2,001	3,688	514
06/02/15	23.30	7.40	2,272	4,972	474
06/03/15					
06/04/15	22.37	7.30	1,641	1,566	407
06/05/15					
06/06/15					
06/07/15					
06/08/15	20.93	7.50	2,581	5,232	391
06/09/15	20.78	7.50	2,460	4,919	364
06/10/15					
06/11/15	20.56	7.40	2,399	6,032	377
06/12/15					
06/13/15					
06/14/15					
06/15/15	19.63	7.40	3,583	5,563	314
06/16/15	19.27	7.40	2,890	5,010	291
06/17/15					
06/18/15	19.14	7.50	2,010	6,254	326
06/19/15					
06/20/15					
06/21/15					
06/22/15	18.47	7.40	2,155	5,603	348
06/23/15	18.76	7.50	2,314	5,503	286
06/24/15					
06/25/15	19.02	7.40	3,107	4,945	289
06/26/15					
06/27/15					
06/28/15					
06/29/15	19.47	7.50	2,402	6,231	302
06/30/15	19.66	7.50	3,146	5,309	461
07/01/15					
07/02/15	19.41	7.50	3,299	4,528	431
07/03/15					
07/04/15					
07/05/15					
07/06/15	20.08	7.60	5,121	4,552	427
07/07/15	19.94	7.40	5,085	4,121	446
07/08/15					
07/09/15	19.52	7.50	4,783	2,863	433
07/10/15					
07/11/15					
07/12/15					
07/13/15	18.65	7.40	3,543	4,723	331
07/14/15	18.54	7.60	2,287	4,017	303
07/15/15					
07/16/15	18.57	7.50	3,218	5,632	288
07/17/15					
07/18/15					
07/19/15					
07/20/15	19.19	7.50	2,303	5,886	282
07/21/15	19.40	7.50	2,910	6,078	332

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
07/22/15					
07/23/15	20.26	7.40	2,634	5,065	370
07/24/15					
07/25/15					
07/26/15					
07/27/15	19.71	7.50	2,596	4,271	299
07/28/15	17.07	7.50	2,731	4,893	282
07/29/15					
07/30/15	17.59	7.60	3,312	3,634	277
07/31/15					
08/01/15					
08/02/15					
08/03/15	19.58	7.50	2,676	7,702	323
08/04/15	19.21	7.50	3,265	7,171	317
08/05/15					
08/06/15	17.32	7.50	3,435	5,832	263
08/07/15					
08/08/15					
08/09/15					
08/10/15	17.69	7.50	2,359	4,836	266
08/11/15	18.18	7.50	3,151	4,423	273
08/12/15					
08/13/15	19.24	7.50	2,950	6,541	337
08/14/15					
08/15/15					
08/16/15					
08/17/15	19.85	7.40	2,250	3,111	364
08/18/15	19.96	7.40	2,296	4,924	400
08/19/15					
08/20/15	19.97	7.50	1,964	9,720	383
08/21/15					
08/22/15					
08/23/15					
08/24/15	19.76	7.40	2,536	6,587	346
08/25/15	19.55	7.50	2,770	5,605	359
08/26/15					
08/27/15	19.09	7.40	1,909	1,781	397
08/28/15					
08/29/15					
08/30/15					
08/31/15	18.92	7.50	2,144	4,793	284
09/01/15	18.89	7.50	1,354	6,109	315
09/02/15					
09/03/15	18.82	7.40	1,725	7,278	330
09/04/15					
09/05/15					
09/06/15					
09/07/15	18.70	7.50	1,278	4,738	351
09/08/15	18.89	7.40	1,669	4,850	342
09/09/15					
09/10/15	19.03	7.60	1,872	11,293	341
09/11/15					
09/12/15					
09/13/15					

Date	OUTFALL DSN 001				
	FLOW MGD	pH s.u.	BOD5 ppd	TSS ppd	AOX ppd
09/14/15	18.84	7.60	1,790	5,589	335
09/15/15	18.92	7.50	1,671	6,810	300
09/16/15					
09/17/15	19.31	7.50	2,092	6,050	349
09/18/15					
09/19/15					
09/20/15					
09/21/15	21.27	7.40	2,411	8,155	342
09/22/15	22.37	7.40	2,796	6,711	379
09/23/15					
09/24/15	22.54	7.40	3,006	7,213	344
09/25/15					
09/26/15					
09/27/15					
09/28/15	22.99	7.60	1,954	6,590	366
09/29/15	23.38	7.50	2,611	2,027	378
09/30/15					
Average	20.10	7.52	5,645	4,559	388
Std Dev	3.40	0.16	2,715	4,365	117

Attachment B. Bleach Plant Chloroform Monitoring Data

Date	CHLOROFORM IN BLEACH PLANT EFFLUENT						
	D100 FILTRATE			EOP FILTRATE			TOTAL
	FLOW MGD	CHLOROFORM mg/L	CHLOROFORM lb/day	FLOW MGD	CHLOROFORM mg/L	CHLOROFORM lb/day	CHLOROFORM lb/day
11/23/10	3.5	22.1	0.7	1.2	12.7	0.1	0.8
01/24/11	3.3	19.7	0.5	1.0	13.7	0.1	0.7
03/24/11	3.1	24.0	0.6	1.4	18.6	0.2	0.8
05/06/11	3.2	23.2	0.6	0.9	14.7	0.1	0.7
07/14/11	3.3	29.3	0.8	1.1	38.2	0.4	1.2
09/23/11	2.9	58.3	1.4	1.3	39.9	0.4	1.8
11/17/11	3.1	35.4	0.9	1.2	15.8	0.2	1.1
01/17/12	3.5	35.2	1.0	0.4	12.4	0.0	1.1
03/08/12	3.1	48.7	1.2	0.3	11.9	0.0	1.3
05/07/12	3.3	39.6	1.1	0.4	14.4	0.0	1.1
07/12/12	3.2	30.2	0.8	0.4	9.8	0.0	0.8
09/20/12	3.3	51.9	1.4	0.4	7.2	0.0	1.4
11/15/12	4.1	44.3	1.5	0.5	17.7	0.1	1.6
01/10/13	4.7	51.8	2.0	0.3	9.3	0.0	2.1
03/07/13	4.4	69.1	2.6	0.7	12.4	0.1	2.6
05/13/13	2.8	51.9	1.2	0.8	34.8	0.2	1.4
07/16/13	2.9	37.4	0.9	0.5	24.5	0.1	1.0
09/17/13	3.1	25.5	0.7	0.4	8.2	0.0	0.7
11/28/13	3.2	40.0	1.1	0.6	32.0	0.2	1.2
01/09/14	4.5	130.0	4.9	0.5	29.0	0.1	5.0
03/20/14	4.2	28.0	1.0	0.5	7.5	0.0	1.0
05/06/14	4.3	46.0	1.7	0.5	22.0	0.1	1.7
07/10/14	4.3	32.0	1.2	0.6	17.0	0.1	1.2
09/04/14	4.3	28.0	1.0	0.5	11.0	0.0	1.1
11/14/14	2.6	29.0	0.6	0.5	0.0	0.0	0.6
02/09/15	2.5	77.9	1.6	0.5	39.0	0.2	1.8
04/17/15	3.3	30.2	0.8	0.4	21.5	0.1	0.9
06/11/15	3.0	49.3	1.2	0.3	22.0	0.1	1.3
08/06/15	3.3	56.8	1.6	0.3	27.8	0.1	1.6
Average	3.5	42.9	1.3	0.6	18.8	0.1	1.37
Std Dev	0.6	22.1	0.8	0.3	10.5	0.1	0.84

Attachment C. Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies

INTERIM GUIDANCE FOR PERFORMANCE-BASED REDUCTION OF NPDES PERMIT MONITORING FREQUENCIES

April 1996

This document provides guidance to EPA permit writers and States on how best to implement EPA's National Pollutant Elimination System (NPDES) regulations regarding appropriate monitoring requirements in permits. It also provides guidance to the public and to the regulated community on how EPA intends to exercise its discretion in implementing its regulations. The guidance is designed to implement national policy on these issues. Pretreatment control authorities also may find it helpful in setting monitoring frequency for industrial users of POTWs. The document does not substitute for EPA's regulations, nor is it a regulation itself. Thus, it cannot impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA may change this guidance in the future, as appropriate.

INTERIM GUIDANCE FOR PERFORMANCE-BASED REDUCT OF NPDES PERMIT MONITORING FREQUENCIES

Introduction

The President's Regulatory Reinvention Initiative for the Environmental Protection Agency (EPA) established an interim goal of reducing reporting and monitoring by at least 25%. This goal is also embodied in the Office of Water's Agenda for the Future, which sets forth program priorities for the coming years for EPA and States.

Based on these directions, EPA's Offices of Water and Enforcement & Compliance Assurance developed this Interim Guidance to reduce regulatory burdens associated with reporting and monitoring based on a demonstration of excellent historical performance by facilities subject to NPDES permit requirements. Under this guidance, facilities can demonstrate this historical performance through both compliance and enforcement history and a demonstrated ability to consistently reduce pollutants in their discharge below the levels necessary to meet existing permit requirements. Facilities will also be expected to maintain these performance levels to continue to receive the reductions. Reducing burdens in this manner will also provide incentives for voluntary reductions of pollutant discharges through such means as reuse and recycling.

The approach for determining the degree of burden reduction available to individual facilities is statistically sound and will not reduce the ability of EPA and States to determine non-compliance with permit requirements.

This guidance should also prove useful in setting monitoring frequencies for industrial users of POTWs. EPA has not studied whether the variability of industrial users' effluent is similar to that for NPDES permittees. Pretreatment control authorities may choose to apply this policy to their industrial users with effluent similar to that discussed in this guidance.

Future reductions to NPDES that can be integrated into this burden reduction initiative include ongoing ambient monitoring efforts within the Office of Water.

Summary of Decision-Making Process

The guidance applies to both major and minor individual NPDES permits for direct discharges and will be implemented through the existing NPDES permitting cycle for facilities.
The following steps are to be taken when determining if a particular facility is eligible for reductions, and, if so, the amount of these reductions. These steps are also described in more detail in the next section of the guidance.

1) Facility[1] Enforcement History

Each facility's enforcement history is analyzed to assess eligibility for reductions under the guidance. Criminal convictions under any environmental statute and NPDES civil judicial and administrative enforcement actions are criteria considered in determining eligibility.

2) Parameter-by-Parameter Compliance History

For each eligible facility the compliance history for each parameter controlled in its existing permit is examined for Significant Noncompliance violations and/or effluent violations for critical parameters. These critical parameters are determined at the discretion of the permitting authority and could include pollutants which pose a higher risk to human or environmental health. The results of this examination determine which parameters are eligible for monitoring reductions.

3) Parameter-by-Parameter Performance History

The permitting authority then calculates, for each eligible parameter, the two-year composite average at each outfall. The composite average is compared with the permit limit, and the information in Table 1, which is based on the existing monitoring frequency, to determine the potential monitoring frequency reduction.

4) Continued Eligibility for Reductions

EPA and States would continue to monitor each parameter for significant noncompliance and any effluent violations of critical parameters, failure to submit DMRs, and any new enforcement actions. If violations based on these do occur, the permitting authority may require increased monitoring in accordance with a Section 308 or 309 order (or State equivalent).

5) Future Reductions for Ambient Monitoring

Based on the facility's agreement to participate in an ambient monitoring program, along with other stakeholders in a watershed, additional reductions could be provided, at the discretion of the permitting authority.

Timing of Decisions

Monitoring reductions should be considered during permit reissuance. Reductions based on facility performance may also be considered if the permit is reopened to accommodate other issues. The permitting authority may, at their option, modify the permit solely to reduce monitoring requirements if sufficient resources are available. Monitoring requirements are not

[1]The term "facility" as used in this document refers to the regulated entity.

considered effluent limitations under section 402(o) of the Clean Water Act, and therefore anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies.

Permit monitoring requirements may, at the permit issuing authority's option, contain conditions for decreases in monitoring if specified performance conditions are met and/or require increased monitoring if performance levels drop. Although such conditions have sometimes been used in NPDES permits in the past, these conditions cannot now be tracked in the Permits Compliance System (PCS) data base system. If the permitting authority has sufficient resources to manually track changed reporting frequencies, such provisions could be included in the permit when the monitoring frequencies are adjusted based on changed performance. Increased monitoring requirements if performance levels are not maintained will be incorporated through enforcement orders under Sections 308 or 309 of the Clean Water Act (or State equivalent).

Entry Criteria for Participation

1) Facility Enforcement History

Criminal Actions (all environmental statutes)

- Facilities which have been criminally convicted under any Federal or State environmental statute of falsifying monitoring data or committing violations which presented an imminent and substantial endangerment to public health or welfare *will not receive any reductions at any time in the future*[2].

- Facilities convicted of any other criminal violation under any Federal or State environmental statute *will not receive any reductions for five years.*

- *Reductions will be available* for those facilities where an individual employed by the permittee, but not the permittee itself, was convicted of a criminal violation under any Federal or State environmental statute, provided the permittee discovered and self-disclosed the violation, and took prompt action to correct the root cause in order to prevent future criminal violations.

Civil Judicial Actions (Clean Water Act/NPDES related)

- Facilities are eligible for consideration of reductions 1 year after completion of injunctive relief and payment of penalty.

Administrative Actions (Clean Water Act/NPDES related)

- Facilities are eligible for consideration after the permittee has complied with

Vhenever the permit writer, on a case-by-case basis, determines that there has been a wholesale change in ownership and management, that ity may become eligible for consideration under this guidance as a new permittee.

Administrative Penalty Order (APO) or Administrative Order (AO) (including State equivalent) requirements, and payment of any assessed penalty. A permittee that is issued an AO, in conjunction with reissuance of its permit, to extend a compliance schedule, may be eligible if the permittee is in compliance with the interim milestones and schedule in the AO.

For example, in order to comply with a newly promulgated effluent guideline, an industrial sector may be required to install a new technology. Some facilities may not be able to attain the new technology immediately so an AO is issued at the time the facility's permit is reissued. The AO sets a compliance schedule to allow the permittee additional time to install the technology needed to meet the new effluent guideline limitation.

2) Parameter-by-Parameter Compliance

The permitting authority will examine each of the following entry criteria:

Significant Noncompliance for Parameters under Consideration

- A facility may not have had any Significant Noncompliance (SNC) violations for the parameters for which monitoring/reporting reductions are being considered during the last two years and,

Any Effluent Violations of Selected Parameters

- A facility may not have had any effluent violations of selected (critical) parameters during the last year. The "selected parameters" can be permit-specific and would be determined at the discretion of the permitting authority. These parameters could include pollutants which pose heightened risks to human or environmental health, such as highly toxic or bioaccumulative compounds.

3) Parameter-by-Parameter Performance History

- At a minimum, the two most recent years of monthly average effluent data representative of current operating conditions for the parameter at the particular outfall will be used to calculate the long term average discharge rate for use in Table 1.

- The baseline monitoring frequencies in Table 1 of this guidance will normally be considered the level of monitoring in the existing effective NPDES permit. It is important to recognize that permittees that receive monitoring frequency reductions in accordance with Table 1 or Table 2 are still expected to take all appropriate measures to control both the average level of pollutants of concern in their discharge (mean) as well as the variability of such parameters in the discharge (variance), *regardless* of any reductions in monitoring frequencies granted from the baseline levels. Reliance on monitoring the discharge at a reduced frequency as the sole means of tracking and controlling the discharge could increase the risk of violations.

Table 1

Ratio of Long Term Effluent Average to Monthly Average Limit

Baseline Monitoring	75-66%	65-50%	49-25%	<25%
7/wk	5/wk	4/wk	3/wk	1/wk
6/wk	4/wk	3/wk	2/wk	1/wk
5/wk	4/wk	3/wk	2/wk	1/wk
4/wk	3/wk	2/wk	1/wk	1/wk
3/wk	3/wk	2/wk	1/wk	1/wk
2/wk	2/wk	1/wk	2/mo	1/mo
1/wk	1/wk	1/wk	2/mo	1/2mos
2/month	2/mo	2/mo	2/mo	1/quarter
1/month	1/mo	1/mo	1/quarter	1/6mos

Note: See above eligibility requirements.

- New permittees should go through one permit cycle (5 years) before being eligible for consideration for reduced monitoring.

- Facilities would not normally be considered for reductions in monitoring frequencies below once per quarter, except in unusual circumstances of reliable performance at the requisite levels and outstanding compliance/enforcement histories.

- Facilities which satisfy the entry criteria but are not experiencing discharges of 75% or less of their permitted levels of water quality-based parameters may still be eligible for reductions in monitoring/reporting frequencies at the discretion of the permitting authority. To control an increased risk of undetected violations, monitoring should only be reduced for such parameters if the applicant can demonstrate a very low variation in the concentrations being discharged.

  Parameters that show a long-term (2 year) average discharge between the permitted concentration and 76% of a water quality-based permit limit should demonstrate a coefficient of variation (ratio of standard deviation to average) of 20% or less. An additional safeguard should stipulate that parameters which showed any exceedance of the monthly average limitation during the two year averaging period would not be subject to

monitoring reductions. It should be noted that discharges with a long-term average at or near the permit limit have a probability of reporting a violation 50% of the time, regardless of low coefficient of variation or sample size. Reductions may be made as shown in Table 2 below:

Table 2

Ratio of Long Term Effluent Average to Monthly Average Limit 100-76%

Baseline Monitoring	Reduced Monitoring
7/wk	6/wk
6/wk	5/wk
5/wk	4/wk
4/wk	4/wk
3/wk	3/wk
2/wk	2/wk
1/wk	1/wk
2/month	2/month
1/month	1/month

4) Residency Criteria for Continued Participation

- Permittees are expected to maintain the performance levels that were used as the basis for granting monitoring reductions. To remain eligible for these reductions, the permittee may not have any SNC violations for effluent limitations of the parameters for which reductions have been granted or failure to submit DMRs, or may not be subject to a new formal enforcement action. For facilities that do not maintain performance levels, the permitting authority may require increased monitoring in accordance with a Section 308 or 309 Order (or State equivalent).

Special Considerations

Discontinuous data: Monitoring should not be reduced using the methodology described above if effluent data have not been continuously reported over the period of time being considered. Effluent averages from interrupted or discontinuous data sets may not be representative of long-term performance. Monitoring frequencies for discharges that are intermittent or short-term, such as seasonal discharges and highly variable batch processes, should not be assessed or reduced using the methods described in this guidance and would need to be considered on a case-by-case

basis.

Independent/Dependent Control Parameters: The procedures for reductions described in this guidance are intended for effluent parameters which are normally independently controlled by the permittee. That is, for each parameter limited in the permit there should be significantly different control mechanisms/factors--either in the permittee's treatment, pretreatment, or process operations. In situations where there are several parameters, each of which could be used to measure the performance of a given system, it will generally be appropriate to primarily monitor only the best indicator parameter. For example, if a biological treatment system can be evaluated by either BOD, CBOD, COD, or TOC measurements; it would be normally appropriate to require monitoring of only one of these oxygen demanding parameters.

The permitting authority should, therefore, examine the parameters being monitored from each facility during the permit issuance process to establish which parameters are independently controlled and/or which can be used to determine the proper operation of a facility. Monitoring of other parameters can be either eliminated or reduced to a minimum frequency.

Monitoring Frequency "Floor": Current federal NPDES regulations do not establish a monitoring frequency "floor" but do establish a reporting frequency floor of once/per year. The monitoring frequency from which reductions could be made in this guidance is considered to be the level of the monitoring in the existing effective NPDES permit. It is important to recognize that the guidance given in Table 1 does not advocate any reductions in statistical confidence in the ability of a permitting authority to determine whether or not a permit limit is being violated at reduced monitoring frequencies. The guidance also does not advocate any reductions for parameters that are currently monitored only once/quarter.

The permitting authority may, however, consider other factors specific to the State or facility. For example, a State policy may establish the baseline. If a facility has already been given monitoring reductions due to superior performance, the baseline may be a previous permit. As a point of reference, Federal regulations do not stipulate minimum monitoring frequencies but do require that reporting cannot be less than once per year. Future national guidance may also be used to establish a baseline for monitoring.

Exceptions: The permitting authority may elect to maintain higher monitoring levels in individual situations where there may be a particular interest in human health, endangered species, or a sensitive aquatic environment. An example would be where a permitting authority has assessed water quality problems in a watershed and determined which point and nonpoint sources are particularly critical from the standpoint of protection of aquatic resources (e.g., endangered species) and human health (e.g., drinking water source). The permitting authority may well decide not to reduce monitoring of critical point sources in these instances, while continuing to monitor the overall situation.

Applicability to Minor Facilities: Minor facilities are fully eligible for reductions under this guidance, even though they are not automatically tracked for SNC in the Permits Compliance

System Database. (Avoidance of SNC is one of the minimum criteria that should be met for participation in this program.) However, permitting authorities may apply the SNC criteria on a case-by-case basis to minor facilities in order to allow them to participate in this program based on permit-specific effluent compliance.

Implementation of Guidance: Where EPA is the permitting authority, it would apply this guidance upon permit reissuance, and consider at that time, whether reductions in monitoring and reporting frequencies were appropriate based upon the compliance/enforcement and performance history of the facility. EPA does not possess adequate resources to routinely reopen, modify, and reissue currently effective permits to revise monitoring frequencies. However, individual permitting authorities may elect to reopen and modify permits to reduce monitoring frequencies consistent with this guidance if resources permit.

Limits below Levels of Detection: This guidance does not recommend reductions in monitoring frequencies in cases where stringent water-quality based limits (WQBELs) are below levels of quantitation (the level at which a constituent present in a wastewater sample can be reliably detected and quantified). Permittees with these types of limits will normally be deemed to be in compliance when monitored levels are below the level of quantitation; however, by definition, it is not scientifically possible (until analytical methods improve) to certify that the WQBELs are actually being achieved. Thus, EPA feels it would be inappropriate to develop national guidance establishing reductions from established monitoring frequencies for these types of limits. However, individual permitting authorities may still use their discretion in considering reductions on a case-by-case basis.

Use of Daily Maximum Values: This guidance does not provide a specific methodology for considering daily maximum permit values when considering monitoring/reporting reductions. However, EPA is in the process of implementing a revised definition of SNC that accounts for daily maximum violations. The new definition will be included in the entry criteria of this proposal. In the interim, permitting authorities should consider such situations on a case-by-case basis. There may be concerns over instances where, for example, there are acutely toxic conditions in a receiving water due to violations of daily maximum permit limitations. In such cases, the permitting authority may elect to maintain higher monitoring levels. In addition, it is important to recognize that dischargers who frequently violate daily maximum permit limitations will likely be unable to achieve high levels of performance in monthly average limits and effectively would not be eligible to participate in this program on that basis. In addition, such facilities may also trigger one of the various compliance/enforcement-based entry criteria.

Applicability of this program to indirect users of POTWs: Many elements of the national Pretreatment program parallel the NPDES permit program. In general, therefore, the same overall logic embodied in this guidance may be extended to industrial users of POTWs (IUs), where appropriate. However, EPA has not investigated whether monitoring data of industrial users of POTWs (IUs) can be characterized with similar coefficients of variation. (Tables 3, 4, and 5 were generated for facilities with coefficients of variation of 20%, 60%, and 80%, respectively.)

Where monitoring frequencies are already near the minimum required by regulation (e.g., twice per year for significant industrial users), the reductions in this guidance would not apply. EPA has begun a dialogue among State and EPA Regional Pretreatment Coordinators to more fully discuss possible pilot projects and statistical analyses.

Incentives for Ambient Monitoring: This interim guidance focuses primarily on criteria for reducing reporting and monitoring used for determining compliance with NPDES permit requirements. It is our intention to reduce burdens associated with these activities where good compliance and permitting performance can be demonstrated and maintained. Another important policy direction for EPA and State water programs is the need to focus our resources more effectively on the problems facing individual places. This Community Based Environmental Protection (CBEP) strategy is embodied through our watershed protection approach. One of the most important aspects of a successful watershed protection approach is to get the best possible monitoring information on the conditions, causes and sources of impairment, and relative impact of these sources on the overall health of a watershed and the effectiveness of our control actions in a watershed. The approach described below for obtaining ambient monitoring information from point sources will also help provide important linkages among other important activities such as more comprehensive of our waters under Section 305(b), effluent trading in watersheds, and improved Total Maximum Daily Load (TMDL) analyses.

This information needs to be gathered and used, where available, from a variety of sources, including municipal and industrial point source dischargers. These point sources could provide a great deal of valuable ambient monitoring information that could be very helpful in making better watershed-based decisions. While certain information may be unique to an individual watershed, there needs to be a core group of environmental indicators, such as attainment of designated uses in State water quality standards and fish consumption advisories, that each watershed will need to measure. NPDES dischargers could often provide valuable information to help measure these core indicators of the overall health of the watershed.

Therefore, in order to encourage NPDES dischargers to voluntarily provide this information or collect additional ambient monitoring information, permitting authorities may consider granting additional reductions in compliance reporting and monitoring, over and above the reductions granted based on good performance if permittees agree to collect or provide additional ambient monitoring information. Prior to granting these additional reductions, permitting authorities should reach agreements with the dischargers on how this information will be provided or collected and how it will be used to give all key stakeholders a better picture of the overall health of the affected watershed. The amount of additional reduction will be at the discretion of the permitting authority who should work collaboratively with State and watershed agencies who design and implement monitoring programs to support environmentally based decisions. This closer integration of ambient and compliance monitoring may also be included in EPA/State agreements to support the National Environmental Performance Partnership System (NEPPS).

Finally, any additional reductions provided should be done so in a manner consistent with the

framework and other criteria described in this guidance.

Future Actions

The burden reductions recommended under this guidance will be available immediately. Over the next 12-18 months, EPA will also conduct detailed pilot studies in two States, Louisiana, and Oklahoma, to closely monitor implementation of the guidance. Based on information from these pilot studies and other information, EPA will consider modifications to this interim guidance as appropriate.

Supporting Statistical Study

Effect of Sample Size on Probability of Violation

EPA has done a statistical analysis on the effect of sampling frequency on compliance assessment. The basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limit results in a low probability of the occurrence of a violation for a wide range of sampling frequencies.

The probability of the occurrence of a violation of a monthly average permit limit was calculated. Tables 3, 4 and 5 display the percentage of time that a monthly average permit violation will be reported given sample size and a long-term average to permit ratio. This probability is dependent on the true long-term average of the discharge, the permit limit, and the monthly sampling frequency. The variables of long-term average and permit limit are both reflected in the tables by expressing these as a ratio. Tables 3, 4, and 5 assume a normal distribution of monthly averages and show the effect of altering the assumed coefficient of variation, using 20%, 60%, and 80%, respectively.

Obviously, the best estimate of the true monthly average discharge is obtained by daily sampling. One can assess the true violation rate of a discharge by looking at the probability calculated assuming sampling was done daily (30 times per month). In order to maintain compliance with a permit limit, the long term average level of the discharge must be controlled at a level less than the permit limit. Reducing the sample size, while increasing the probability that a violation will be reported, does not change the underlying probability of reporting a violation associated with a baseline estimate of the monthly average calculated with 30 samples. With a constant performance, the probabilities of reporting a permit violation increase as the sample size is reduced from daily sampling because the variance of the average is inversely proportional to the sample size.

Looking at the true violation rate of a facility sampling daily and operating at 75% of their permit limit, these tables show that the probability of a violation in a given month is 1% or less. If the long-term average discharge is 65% of the permit limit, the true percentage of violation is less than 1%. As sample size decreases for a given discharge/limit ratio, the expected percentage of time that the average of the samples collected during the month will exceed the permit limit increases. For example, Table 5 demonstrates that at a ratio of 65%, the expected violation rate is effectively zero. If a subsample of 8 samples per month is taken instead of 30, the facility has a 3% chance of reporting a violation. If only one sample per month is taken, the chances of reporting a violation increase to 25%. The facility performance (true monthly average discharge) has not changed, thus "missed" monthly average violations are not an issue. The probabilities calculated for very low sampling frequencies reflects the risk assumed by the discharge operator that monthly average violations will be reported when in fact the process average is under permit limit. If facility performance degrades during the permit term and sampling has been reduced, it can be seen that the facility will have probability of reporting violations at a higher rate, even if the long-term average is still below the permit limit. An example will illustrate this point. Table 5 shows that if a facility was judged to be at 75% of their permit limit and reduced sampling from 16 to 12 times per month, the probability of violation would change from approximately 5% to

7%. If the long-term average performance degraded to 90% of the permit limit, the 12 monthly samples would yield expected monthly average permit violations 32% of the time instead of 29% of the time if 16 samples were collected.

Table 5 shows probabilities calculated using a more conservative assumption of 80% coefficient of variation. The results show that facilities with a long term average of less than or equal to 75% have essentially no chance of violating a monthly average limit, hence facilities with this performance would be good candidates for performance-based monitoring reductions. The reductions in Table 1 were designed to maintain approximately the same level of reported violations as that experienced with their current (baseline) sampling.

Table 3

Probability of Reporting Monthly Average Permit Violations at 20% Effluent Variability (CV = 0.20; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	7%	8%	10%	12%	15%	18%	23%	30%	35%	40%
90%	0%	0%	0%	1%	1%	3%	6%	13%	22%	29%
85%	0%	0%	0%	0%	0%	0%	1%	4%	11%	19%
80%	0%	0%	0%	0%	0%	0%	0%	1%	4%	11%
75%	0%	0%	0%	0%	0%	0%	0%	0%	1%	5%
70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
65%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
55%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Table 4

Probability of Reporting Monthly Average Permit Violations at 60% Effluent Variability (CV = 0.60; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	32%	32%	33%	35%	36%	38%	40%	43%	45%	47%
90%	16%	16%	18%	20%	23%	26%	30%	36%	40%	43%
85%	5%	6%	7%	9%	12%	15%	20%	28%	34%	38%
80%	1%	1%	2%	3%	5%	7%	12%	20%	28%	34%
75%	0%	0%	0%	1%	1%	3%	6%	13%	22%	29%
70%	0%	0%	0%	0%	0%	1%	2%	8%	16%	24%
65%	0%	0%	0%	0%	0%	0%	1%	4%	10%	18%
60%	0%	0%	0%	0%	0%	0%	0%	1%	6%	13%
55%	0%	0%	0%	0%	0%	0%	0%	0%	3%	9%
50%	0%	0%	0%	0%	0%	0%	0%	0%	1%	5%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Table 5

Probability of Reporting Monthly Average Permit Violations at 80% Effluent Variability (CV = 0.80; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	36%	36%	37%	38%	40%	41%	43%	45%	46%	47%
90%	22%	23%	25%	27%	29%	32%	35%	39%	42%	44%
85%	11%	12%	14%	16%	19%	22%	27%	33%	38%	41%
80%	4%	5%	6%	8%	11%	14%	19%	27%	33%	38%
75%	1%	1%	2%	3%	5%	7%	12%	20%	28%	34%
70%	0%	0%	0%	1%	2%	3%	6%	14%	22%	30%
65%	0%	0%	0%	0%	0%	1%	3%	9%	17%	25%
60%	0%	0%	0%	0%	0%	0%	1%	5%	12%	20%
55%	0%	0%	0%	0%	0%	0%	0%	2%	7%	15%
50%	0%	0%	0%	0%	0%	0%	0%	1%	4%	11%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Detailed Protocol for Calculating Probability of Reporting Permit Violations

Calculation of probabilities for Tables 3-5

Probability distributions may be used to model effluent data and assess the probability of permit violations. The models provide a logical and consistent methodological framework for using observed performance data to assess permit limitations in an objective manner. The goal of the limitations is to establish performance levels that enforce good treatment and ensure that water quality objectives are met. In deriving limitations, sufficient allowance for variation in treatment performance is provided such that a well-operated treatment system should be capable of compliance with the limitations at all times. In using probability models as the basis for limits, it is necessary to select a percentile value such that, within the context of the model, any meaningful limit will have a non-zero probability of being exceeded.

The results shown in the tables here are derived from probability distribution functions that may be used to model effluent data. That is, the processes are assumed to operate over time in a manner that is consistent with past performance. No intervention to change the process or exert more or less control over the discharge is assumed.

Calculation of the probability that a reported permit violation will occur depends upon: the number of individual samples taken during the month, the long-term discharge level, the variance of the discharge concentrations, the probability distribution of the individual samples during the month, and the permit limit. There are two probability distributions commonly used to model effluent data: the lognormal distribution and the normal distribution. The lognormal distribution usually provides a good fit to data sets comprised of individual effluent measurements because such data typically have two critical lognormal characteristics: they are positive valued and positively skewed. Positive skewness means that the data are characterized by a tendency for a preponderance of measurements in the lower range of possible values with relatively fewer measurements stretched out over a wider range of possible upper values. The lognormal also has the property that the logarithms (natural or base 10) of the data are normally distributed. The normal distribution has the well-known "bell shape" and is mathematically straightforward so that working with the logarithms of effluent data is relatively uncomplicated.

The asymptotic distribution of sample averages is normally distributed. That is, the average of a sample of individual measurements will have a distribution that is approximately normally distributed regardless of the distribution of the individual measurements. The quality of the approximation depends on several factors including the number of individual measurements being averaged and the form of the underlying distribution. Although individual effluent measurements are rarely normally distributed, it is reasonable in many situations to approximate the distribution of the averages of effluent measurements with a normal distribution and thus the normal approximation is used in many cases as a model for monthly average effluent limitations. The results in Tables 3-5 are based on the assumption of a normal distribution for the averages of effluent measurements. Extensive discussion on the statistical modelling of effluent data and methodology for setting effluent limitations are contained in EPA's 1991 Technical Support Document for Water Quality-based Toxics Control (TSD).

The results of calculating probability of a reported violation of a monthly average permit limit are shown in Tables 3 through 5 under different conditions. The purpose of these tables is to provide some insight into the effects of changing monitoring requirements. The probability of exceeding the monthly limit when the long-term average of the discharge is at the desired value can be thought of as the Type I error rate (alpha-level) of the monitoring program. When the long-term average exceeds the desired limit, the probability of exceeding the monthly limit is now the monitoring program's ability to detect violation increases if the long-term average increases over the desired level. It should be understood that if permit limits are held constant and performance measures such as long term average discharge and variability of treatment do not change, then reducing the number of monitoring measurements used to calculate the monthly average causes the probability of a violation to increase for all values of the long term average less than the monthly average permit limit. This has a two-fold effect: 1) the chances of reporting a violation even when the long term average is less than the desired level (the Type I error rate) go up 2) the sensitivity (ability to detect violations) of the program increases. The Tables also show that if the average discharge level is held well below the monthly average limit, the chances of a violation are small. The thee tables reflect three different levels of variation in the underlying daily data as measured by the coefficient of variation. The coefficient of variation (CV) is the ratio of the standard deviation of the distribution to the mean and is often expressed as a percentage. The CV is a convenient measure for summarizing the relative variability in a data set. The results in Tables 3,4, and 5 use CVs of 20%, 60% and 80% respectively. A coefficient of variation of 60% was used in the TSD to describe a typical level of variation for lognormally distributed effluent data. CVs of 80% and 20% were used to show the effects of higher and lower levels of variability.

The probability distribution of the average of N daily measurements taken during a month, M_N, is given by the following normal probability density function:

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where μ is the mean or long term average, and σ is the standard deviation of the daily discharges. If μ_1 is the maximum monthly average allowed by the permit, then the probability that the monthly average exceeds the permit maximum is given by $P(M_N>\mu_1)$. Using simple algebra this probability can be rewritten as:

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where $\Phi(.)$ is the standard normal cumulative probability function (the Microsoft®Excel built-in function NORMDIST).

Since

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where C is the coefficient of variation, then the probability of a monthly average exceeding the maximum allowable can be calculated using C, N, and the ratio of the long-term average to the maximum allowable monthly average using NORMDIST. This is how the values in Tables 3, 4, and 5 were calculated.

Alternate approaches to probability calculations:

The probabilities in Tables 3-5 were calculated with the assumption that the distribution of the sample means is normal. Individual sample values are generally best fit to a lognormal distribution. As discussed in the TSD, the mean of small samples from a lognormal distribution is in most cases approximately lognormal. Probabilities can be calculated assuming a lognormal distribution by two different methods, a Monte Carlo technique and the Microsoft Excel built-in function LOGNORMDIST. The resulting probabilities will be very close to those in the normal distribution table for the sample sizes and discharge levels under consideration for monitoring reductions, although the probabilities calculated from these two distributions may not be comparable for all sample sizes and all discharge levels.

The statistical evaluations used in this analysis are intended for use only to illustrate the effect and benefits of this strategy, alternative statistical techniques and approaches may be utilized in other situations.

NPDES Burden Reduction Analysis

The analysis to estimate the NPDES burden reduction used the SAS Language and data from the Permit Compliance System (PCS) database. The procedure, assumptions, and results are summarized below:

- The universe for this study was all major facilities with measurement data in PCS (6,477) for the two-year evaluation period of 1/93 to 12/94. This evaluation period was chosen in order to have as large a universe as possible since the Commonwealth of Virginia and the State of California have not entered measurement data into PCS for 1995.

- The facility entry criteria for enforcement history were approximated by eliminating permittees for consideration that have effluent violations for either an active formal judicial action or an active formal administrative order (AO) for 1995.

- The parameter entry criterion, evaluated per outfall, was the elimination of parameters for consideration that have had any Significant Non-Compliance (SNC) violations during the two-year evaluation period.

- For each parameter eligible for burden reduction, the long-term average (LTA) for the two-year period was calculated and compared to the monthly average limit.

- The amount of burden reduction was calculated to be the ratio of the difference between the monthly average limit and the LTA divided by the monthly average limit. This approximates the reduction presented in Table 1 of the guidance for LTA to monthly average limit ratios up to 75%.

- No reduction for parameters not meeting the 75% ratio threshold.

Table 6

	Burden Reduction
Municipal	27%
Non-municipal	24%
Total	**26%**

Appendix B
Proposed Draft Modified Permit

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: BOISE WHITE PAPER LLC

FACILITY LOCATION: 4585 INDUSTRIAL RD
JACKSON, AL 36545

PERMIT NUMBER: AL0002755

RECEIVING WATERS: DSN001-TOMBIGBEE RIVER

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: JULY 27, ~~2011~~ 2016

EFFECTIVE DATE: AUGUST 1, ~~2011~~ 2016

EXPIRATION DATE: JULY 31, ~~2016~~ 2021

GIENNA L. DEAN

Alabama Department of Environmental Management

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0011:(May-Oct) Flow ≤2000 cfs -Monthly: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	11800 lbs/day	6152 lbs/day	-	-	-	3X Weekly test	Composite	May - October
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	May - October
Solids, Total Suspended	53365 ~~52791~~ lbs/day	~~28348~~ 28630 lbs/day	-	-	-	3X Weekly test	Composite	May - October
Halogens, Adsorbable Organic 6/	1691 ~~1550~~ lbs/day	~~1016~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	May - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0012:(May-Oct) Flow >2000 cfs and ≤2500 cfs: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	16106 lbs/day	8397 lbs/day	-	-	-	3X Weekly test	Composite	May - October
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	May - October
Solids, Total Suspended	53365 ~~52791~~ lbs/day	~~28348~~ 28630 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	May - October
Halogens, Adsorbable Organic 6/	1691 ~~1550~~ lbs/day	~~1016~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	May - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0013:(May-Oct) Flow >2500 cfs and <3200 cfs: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	25377 lbs/day	13242 lbs/day	-	-	-	3X Weekly test	Composite	May - October
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	May - October
Solids, Total Suspended	53365 ~~52791~~ lbs/day	~~28348~~ 28630 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	May - October
Halogens, Adsorbable Organic 6/	1691 ~~1550~~ lbs/day	~~1016~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	May - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0014:(May-Oct) Prod <1575 and Flow≥3200 cfs: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	30262 lbs/day	15801 lbs/day	-	-	-	3X Weekly test	Composite	May - October
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	May - October
Solids, Total Suspended	53365 ~~52791~~ lbs/day	~~28348~~ 28630 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	May - October
Halogens, Adsorbable Organic 6/	1691 ~~1550~~ lbs/day	~~1016~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	May - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0015:(Nov-Apr) Prod >1575 TPD: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	33215 lbs/day	17332 lbs/day	-	-	-	3X Weekly test	Composite	November - April
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	November - April
Solids, Total Suspended	58586 lbs/day	31454 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	November - April
Halogens, Adsorbable Organic 6/	1691 ~~1672~~ lbs/day	~~1095~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	November - April
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	November - April

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0016:(May-Oct) Prod >1575 and Flow >3200: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	33215 lbs/day	17332 lbs/day	-	-	-	3X Weekly test	Composite	May - October
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	May - October
Solids, Total Suspended	58586 lbs/day	31454 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	May - October
Halogens, Adsorbable Organic 6/	1671 ~~1672~~ lbs/day	~~1095~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	May - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	May - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN0017:(Nov-April) Prod <1575 tpd. Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater. 3/ 4/ 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	29320 ~~30362~~ lbs/day	~~15801~~ 15325 lbs/day	-	-	-	3X Weekly test	Composite	November - April
pH	-	-	5.0 S.U.	9.0 S.U.	-	3X Weekly test	Grab	November - April
Solids, Total Suspended	53365 ~~52791~~ lbs/day	~~28348~~ 28630 lbs/day	-	-	-	3X Weekly test	24-Hr Composite	November - April
Halogens, Adsorbable Organic 6	1691 ~~1550~~ lbs/day	~~1016~~ 1108 lbs/day	-	-	-	[redacted] Weekly [redacted]	Composite	November - April
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	November - April

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ To step up to the next higher discharge, category river flow must have been in the higher category for a minimum of 12 hours. A step down to the next lower discharge category must be made as soon as possible but no more than 12 hours from indication of a lower category of river flow as measured at the USGS Gage Station at Coffeeville Dam.

4/ All river flows must be measured at the USGS Gage Station at Coffeeville Dam.

5/ See Part IV.E. and Part IV.F.

6/ Adsorbable Organic Halides (AOX).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN001Q: Process wastewater, non-contact cooling water, storm water runoff, construction storm water runoff, landfill leachate, sanitary wastewater, process water, ancillary process wastewater.

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
Nitrogen, Ammonia Total (As N)	-	-	-	REPORT mg/l	-	Quarterly	Composite	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	REPORT mg/l	-	Quarterly	Composite	-
Phosphorus, Total (As P)	-	-	-	REPORT mg/l	-	Quarterly	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN001S:(May-Oct) Flow <2000 cfs - SemiAnnual

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/			
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
2,3,7,8-Tetrachlorodibenzo-P-Dioxin(TCDD) 3/	0.00004 lbs/day	-	-	REPORT ppq	-	Semi-Annual	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.B.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN001Y:(May-Oct) Flow <2000 cfs - Annual

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/			
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
Toxicity, Ceriodaphnia Chronic3/	REPORT pass(0)/fail	-	-	-	-	Annually	Composite	-
Toxicity, Pimephales Chronic3/	REPORT pass(0)/fail	-	-	-	-	Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV. C.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN01A1:Bleach plant internal requirements. 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/			
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	12.3 ~~11.3~~ lbs/day	~~6.75~~ 7.36 lbs/day	-	-	-	Quarterly ~~Once/60 days~~	Grab 4/	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Weekly	Calculated 3/	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

4/ Six (6) grab samples, 40 milliliters each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow-weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewers do no exist, then sample collection shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such a manner that the samples do not contain entrained air (bubbles).

5/ See Part IV.E for BMP requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN01AS: Bleach plant internal requirements. 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
2,4,6-Trichlorophenol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin 6/	-	-	-	< 10.0 pg/l	-	Semi-Annual	Composite	-
2.3,7,8 Tetrachlorodibenzofuran (TCDF) 6/	-	-	-	31.9 pg/l	-	Semi-Annual	Composite	-
Pentachlorophenol 6/	-	-	-	< 5.0 ug/l	-	Semi-Annual	Composite	-
3,4,6-Trichloroguaiacol 6/	-	-	-	< 2.5ug/l	-	Semi-Annual	Composite	-
3,4,6-Trichlorocatechol 6/	-	-	-	< 5.0 ug/l	-	Semi-Annual	Composite	-
3,4,5-Trichloroguaiacol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-
3,4,5 Trichlorocatechol 6/	-	-	-	< 5 .0 ug/l	-	Semi-Annual	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.F. for required test methods and minimum levels.

5/ See Part IV.E for BMP requirements.

6/ It should be noted that any analytical results (using the appropriate EPA test method) for these parameters that is above detection is considered in non-compliance with the permit.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

Such discharge shall be limited and monitored by the permittee as specified below:

DSN01AS (continued): Bleach plant internal requirements. 5/

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Monthly Average	Measurement Frequency 2/	Sample Type	Seasonal
Tetrachloroguaiacol 6/	-	-	-	< 5.0 ug/l	-	Semi-Annual	Composite	-
Tetrachlorocatechol 6/	-	-	-	< 5.0 ug/l	-	Semi-Annual	Composite	-
Trichlorosyringol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-
4,5,6-Trichloroguaiacol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-
2,4,5-Trichlorophenol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-
2,3,4,6-Tetrachlorophenol 6/	-	-	-	< 2.5 ug/l	-	Semi-Annual	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.F. for required test methods and minimum levels.

5/ See Part IV.E for BMP requirements.

6/ It should be noted that any analytical results (using the appropriate EPA test method) for these parameters that is above detection is considered in non-compliance with the permit.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall

provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e. (March, June, September and December DMRs).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the month of the semiannual period, i.e. (June and December DMRs).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. **The first report is due on the 28th day of September**. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a quarterly basis. The first report is due on the 28th day of **January**. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. The DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit. If the permittee, using approved analytical methods as specified in Provision I. B. 2. monitors any discharge from a point source for a limited substance identified in Provision I. A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form and the increased frequency shall be indicated on the DMR Form. In the event no discharge from a point source identified in Provision I. A of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR Form.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and regulations, shall be signed by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

e. The permittee may certify in writing that a discharge will not occur for an extended period of time and after such certification shall not be required to submit monitoring reports. Written notification of a planned resumption of discharge shall be submitted at least 30 days prior to resumption of the discharge. If an unplanned resumption of discharge occurs, written notification shall be submitted within 7 days of the resumption. In any case, all discharges shall comply with all provisions of this permit.

f. All Discharge Monitoring Report forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

g. All other correspondence and reports required to be submitted by this permit, the AWPCA and the Department's Rules, shall be addressed to:

Alabama Department of Environmental Management
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

h. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

(1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)",

(2) threatens human health or welfare, fish or aquatic life, or water quality standards,

(3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a),

(4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4).

(5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset, and

(6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c. no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c. below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1. of this permit after becoming aware of the occurrence of such noncompliance.

c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a copy of the Noncompliance Notification Form provided with this permit and shall include the following information:

(1) A description of the discharge and cause of noncompliance;
(2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address or telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

(1) name and general composition of biocide or chemical,
(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
(3) quantities to be used,
(4) frequencies of use,
(5) proposed discharge concentrations, and
(6) EPA registration number, if applicable.

b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a storm water discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the storm water discharge has been fully initiated.

b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision 1. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall and;

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The permittee shall notify the Director as soon as it is known or there is reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(a) one hundred micrograms per liter;

(b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;

(c) five times the maximum concentration value reported for that pollutant in the permit application; or

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(a) five hundred micrograms per liter;

(b) one milligram per liter for antimony;

(c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules; or

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee.

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. begun, or caused to begin as part of a continuous on-site construction program:

      (1) any placement, assembly, or installation of facilities or equipment; or

      (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized by a permit issued by the Department, the discharge of pollutants to groundwater is prohibited. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.

5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

9. Daily maximum - means the highest value of any individual sample result obtained during a day.

10. Daily minimum - means the lowest value of any individual sample result obtained during a day.

11. Day - means any consecutive 24-hour period.

12. Department - means the Alabama Department of Environmental Management.

13. Director - means the Director of the Department.

14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).

15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.

16. DO – means dissolved oxygen.

17. 8HC – means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

18. EPA - means the United States Environmental Protection Agency.

19. FC – means the pollutant parameter fecal coliform.

20. Flow – means the total volume of discharge in a 24-hour period.

21. FWPCA - means the Federal Water Pollution Control Act.

22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. MGD – means million gallons per day.

27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform

bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:

    a. from which there is or may be a discharge of pollutants;

    b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c. which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

38. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

39. TON – means the pollutant parameter Total Organic Nitrogen.

40. TRC – means Total Residual Chlorine.

41. TSS – means the pollutant parameter Total Suspended Solids.

42. 24HC – means 24-hour composite sample, including any of the following:

    a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected;

    c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

43. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

44. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the

property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

45. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

46. Weekly (7-day and calendar week) Average -- is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV

A. STREAM MONITORING

1. Between May 1 and October 30, stream monitoring shall be performed on a once per week basis except during periods when the river flow exceeds 10,000 cubic feet per second (cfs). Monitoring frequency shall be increased to daily when the Tombigbee River dissolved oxygen at the five foot depth between river miles 89.9 and 71.3 is less than 5.4 mg/l. Sampling stations shall be at the Tombigbee River miles 89.9, 87.3, 79.4, 76.8, 73.4, and 71.3, except that when the dissolved oxygen concentration at river mile 71.3 is less than that at river mile 73.4, sampling shall be continued at approximately one mile intervals until the dissolved oxygen concentration at two consecutive stations remains constant or increases at the downstream station. Parameters monitored shall be dissolved oxygen at the five foot depth, BOD5, water temperature, and pH. Data from stream monitoring shall be submitted to the Department no later than 28 days following the last day of the reporting period. It is requested that this data be provided to the Department in an electronic format.

2. When measured dissolved oxygen concentrations as determined by the permittee, the appropriate state agency, or the EPA are less than 5.0 mg/l at any point between Tombigbee River mile 89.9 and the final downstream sampling point, the permittee shall take any steps necessary to ensure that the permitted discharge does not cause a decrease in the measured dissolved oxygen concentration at the downstream monitoring points. Such steps may include reduction in the quantity of effluent discharged or the cessation of wastewater discharge. If dissolved oxygen at the five foot depth, in the above specified interval, is less than 5.0 mg/l as a result of water above river mile 88.8 (the permittee's discharge point) having less than 5.0 mg/l of dissolved oxygen or because of other conditions not attributable to the permittee, the permittee shall not be required to take steps beyond ceasing discharge while such conditions exist.

3. The Director may require the permittee to perform stream monitoring during periods other than those specified in paragraph one above, if he determines that river conditions are such that stream monitoring is required to protect water quality.

B. DIOXIN REOPENER CLAUSE

Effluent limitations for 2,3,7,8-TCDD (dioxin) are based on a waste load allocation (WLA) to ensure compliance with the water quality standard for 2,3,7,8-TCDD (dioxin) adopted by the Department. Should the Department or EPA modify the water quality standard for 2,3,7,8-TCDD, the Department shall revise the WLA upon which this permit is based, and this permit shall be modified or revoked and reissued to adjust the effluent limitations to be consistent with the modified WLA.

C. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

   a. Test Requirements

      (1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 2 % effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

      (2) Any test result that shows a statistically significant reduction in survival, growth or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and additional testing must be performed as required in C.1.d1.

   b. General Test Requirements

      (1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the permittee and approved by the Department.

      (2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods

or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

(3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

c. Reporting Requirements

(1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

(2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2. of this part, an effluent toxicity report containing the information in Section 2. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

d. Additional Testing Requirements

(1) If chronic toxicity is indicated, the permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date on which the permittee became aware of the toxicity and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.

(2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by

(3) EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F,etc.)

e. Test Methods

(1) The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (Pimephales promelas) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (Ceriodaphnia dubia) test.

2. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county
(2) Permit number
(3) Toxicity testing requirements of permit
(4) Name of receiving water body
(5) Contract laboratory information (if tests are performed under contract)

(a) Name of firm
(b) Telephone number
(c) Address

(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(f) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized
(2) End point(s) of test
(3) Deviations from referenced method, if any, and reason(s)
(4) Date and time test started
(5) Date and time test terminated
(6) Type and volume of test chambers
(7) Volume of solution per chamber
(8) Number of organisms per test chamber
(9) Number of replicate test chambers per treatment
(10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)
(11) Specify if aeration was needed
(12) Feeding frequency, amount and type of food
(13) Specify if (and how) pH control measures were implemented
(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name
(2) Life stage and age
(3) Source
(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source
(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.
(3) Dilution water utilized in reference toxicant test
(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship and evaluate test sensitivity
(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)
(3) Indicate statistical methods used to calculate endpoints
(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits
(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

D. BEST MANAGEMENT PRACTICES (BMPs) FOR SPENT PULPING LIQUOR, SOAP, AND TURPENTINE MANAGEMENT, SPILL PREVENTION, AND CONTROL

1. Applicability

This section applies to direct and indirect discharging pulp, paper, and paperboard mills with pulp production in Subparts B (Bleached Papergrade Kraft and Soda) and E (Papergrade Sulfite) of the Pulp and Paper Guidelines (40 CFR Part 430).

2. Specialized Definitions

a. Action Level: A daily pollutant loading that when exceeded triggers investigative or corrective action. The mill shall determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages).

b. Equipment Items in Spent Pulping, Liquor, Soap, and Turpentine Service: Any process vessel, storage tank, pumping system, evaporator, heat exchanger, recovery furnace or boiler, pipeline, valve, fitting, or other device that contains, processes, transports, or comes into contact with spent pulping liquor, soap, or turpentine. Sometimes referred to as "equipment items".

c. Immediate Process Area: The location at the mill where pulping, screening, knotting, pulp washing, pulping liquor concentration, pulping liquor processing, and chemical recovery facilities are located, generally the battery limits of the aforementioned processes. "Immediate process area" includes spent pulping liquor storage and spill control tanks located at the mill, whether or not they are located in the immediate process area.

d. Intentional Diversion: The planned removal of spent pulping liquor, soap, or turpentine from equipment items in spent pulping liquor, soap, or turpentine service by the mill for any purpose including, but not limited to, maintenance, grade changes, or process shutdowns.

e. Mill: The owner or operator of a direct or indirect discharging pulp, paper, or paperboard manufacturing facility subject to this section.

f. Senior Technical Manager: The person designated by the mill manager to review the BMP Plan. The senior technical manager shall be the chief engineer at the mill, the manager of pulping and chemical recovery operations, or other such responsible person designated by the mill manager who has knowledge of and responsibility for pulping and chemical recovery operations.

g. Soap: The product of reaction between the alkali in Kraft pulping liquor and fatty acid portions of the wood, which precipitate out when water is evaporated from the spent pulping liquor.

h. Spent Pulping Liquor: For Kraft and soda mills "spent pulping liquor" means black liquor that is used, generated, stored, or processed at any point in the pulping and chemical recovery processes. For sulfite mills "spent pulping liquor" means any intermediate, final, or used chemical solution that is used, generated, stored, or processed at any point in the sulfite pulping and chemical recovery processes (e.g., ammonium-, calcium-, magnesium-, or sodium-based sulfite liquors).

i. Turpentine: A mixture of terpenes, principally pinene, obtained by the steam distillation of pine gum recovered from the condensation of digester relief gases from the cooking of softwoods by the Kraft pulping process. Sometimes referred to as sulfite turpentine.

3. Requirement to Implement Best Management Practices

a. The mill must implement the Best Management Practices (BMPs) specified in paragraphs (1) through (10) of this section. The primary objective of the BMPs is to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine that do occur. BMPs must be developed according to best engineering practices and must be implemented in a manner that takes into account the specific circumstances at the mill.

b. The BMPs are as follows:

(1) The mill must return spilled or diverted spent pulping liquors, soap, and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.

(2) The mill must establish a program to identify and repair leaking equipment items. This program must include:
- (a) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap, and turpentine service;
- (b) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations must be identified, temporary means for mitigating the leaks must be provided, and the leaking equipment items repaired during the next maintenance outage;
- (c) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap, and turpentine leaks and spills; and
- (d) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills, or failures.

(3) The mill must operate continuous, automatic monitoring systems that the mill determines are necessary to detect and control leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine. These monitoring systems should be integrated with the mill process control system and may include, e.g., high level monitors and alarms on storage tanks; process area conductivity (or pH) monitors and alarms; and process area sewer, process wastewater, and wastewater treatment plant conductivity (or pH) monitors and alarms.

(4) The mill must establish a program of initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel who have the responsibility for operating, maintaining, or supervising the operation and maintenance of equipment items in spent pulping liquor, soap, and turpentine service. The refresher training must be conducted at least annually and the training program must be documented.

(5) The Mill must prepare a brief report that evaluates each spill of spent pulping liquor, soap, or turpentine that is not contained at the immediate process areas and any intentional diversion of spent pulping liquor, soap, and turpentine that is not contained at the immediate process area. The report must describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports must be included as part of the annual refresher training.

(6) The mill must establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap, and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors, soap, and turpentine during construction.

(7) The mill must install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks equivalent to the volume of the largest tank plus sufficient freeboard for precipitation. An annual tank integrity testing program, if coupled with other containment or diversion structures, may be substituted for secondary containment for spent pulping liquor bulk storage tanks.

(8) The mill must install and maintain secondary containment for turpentine bulk storage tanks.

(9) The mill must install and maintain curbing, diking or other means of isolating soap and turpentine processing and loading areas from the wastewater treatment facilities.

(10) The mill must conduct wastewater monitoring to detect leaks and spills, to track the effectiveness of the BMPs, and to detect trends in spent pulping liquor losses. Such monitoring must be performed in accordance with paragraph 9. of the following sections.

4. Requirement to Develop a BMP Plan

a. The mill must prepare and implement a BMP Plan. The BMP Plan must be based on a detailed engineering review as described in paragraphs 4.b. and c. of this section. The BMP Plan must specify the procedures and the practices required for the mill to meet the requirements of paragraph 3. of the previous section, the construction the mill determines is necessary to meet those requirements including a schedule for such construction, and the monitoring program (including the statistically derived action levels) that will be used to meet the requirements of paragraph 9. of the following sections. The BMP Plan also must specify the period of time that the mill determines the action levels established under paragraph 8. of the following sections may be exceeded without triggering the responses specified in paragraph 9. of the following sections.

b. The mill must conduct a detailed engineering review of the pulping and chemical recovery operations – including but not limited to process equipment, storage tanks, pipeline and pumping systems, loading and unloading facilities, and other appurtenant pulping and chemical recovery equipment items in spent pulping liquor, soap, and turpentine service – for the purpose of determining the magnitude and routing of potential leaks, spills, and intentional diversions of spent pulping liquors, soap, and turpentine during the following periods of operation:

(1) Process start-ups and shut downs;
(2) Maintenance;
(3) Production grade changes;
(4) Storm or other weather events;
(5) Power failures;
(6) Normal operations.

c. As part of the engineering review, the mill must determine whether existing spent pulping liquor containment facilities are of adequate capacity for collection and storage of anticipated intentional liquor diversions with sufficient contingency for collection and containment of spills. The engineering review must also consider:

(1) The need for continuous, automatic monitoring systems to detect and control leaks and spills of spent pulping liquor, soap, and turpentine;
(2) The need for process wastewater diversion facilities to protect end-of-pipe wastewater treatment facilities from adverse effects of spills and diversions of spent pulping liquors, soap, and turpentine;
(3) The potential for contamination of storm water from the immediate process areas; and
(4) The extent to which segregation and/or collection and treatment of contaminated storm water from the immediate process areas is appropriate.

5. Amendment of BMP Plan

a. The mill must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.

b. The mill must complete a review and evaluation of the BMP Plan five years after the first BMP Plan is prepared and, except as provided in paragraph 5.a. of this section, once every five years thereafter. As a result of this review and evaluation, the mill must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

6. Review and Certification of BMP Plan

The BMP Plan, and any amendments thereto, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Department under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this permit and 40 CFR Part 430. The mill is not required to obtain approval from the Department of the BMP Plan or any amendments thereto.

7. Record Keeping Requirements

a. The mill must maintain on its premises a complete copy of the current BMP Plan and the records specified in paragraph b. of this section and must make such BMP Plan and records available to the Department for review upon request.

b. The mill must maintain the following records for three years from the date they are created:

(1) Records tracking the repairs performed in accordance with the repair program described in paragraph 3.b.(2) of the previous sections;
(2) Records of initial and refresher training conducted in accordance with paragraph 3.b.(4) of the previous sections;

(3) Reports prepared in accordance with paragraph 3.b.(5) of the previous sections; and
(4) Records of monitoring required by paragraph 3.b.(10) of the previous sections and paragraph 9. of the following sections.

8. Establishment of Wastewater Treatment System Influent Action Levels

a. The mill must conduct a monitoring program, described in paragraph b. of this section, for the purpose of defining wastewater treatment system influent characteristics (or action levels), described in paragraph c. of this section, that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective action.

b. The mill must employ the following procedures in order to develop the action levels required by paragraph 8. of this section;

(1) Monitoring parameters: The mill must collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC). Alternatively, the mill may use a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).

(2) Monitoring locations: For direct discharges, monitoring must be conducted at the point influent enters the wastewater treatment system. For indirect dischargers monitoring must be conducted at the point of discharge to the POTW. For the purposes of this requirement, the mill may select alternate monitoring point(s) in order to isolate possible sources of spent pulping liquor, soap, or turpentine from other possible sources of organic wastewaters that are tributary to the wastewater treatment facilities (e.g., bleach plants, paper machines and secondary fiber operations).

c. By the date described in paragraph 10.a. of the following sections, each existing discharger must complete an initial six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish initial action levels based on the results of this program. A wastewater treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of six months of daily measurements. The action levels must consist of a lower action level, which if exceeded will trigger the investigation requirements described in paragraph 9. of the following section, and an upper action level, which if exceeded will trigger the corrective action requirements described in paragraph 9. of the following section.

d. By the date prescribed in paragraph 10.a. of the following sections, each existing discharger must complete a second six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish revised action levels based on the results of that program. The initial action levels shall remain in effect until replaced by revised action levels.

e. By the date prescribed in paragraph 10.b. of the following sections, each new source must complete a six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must develop a lower action level and an upper action level based on the results of that program.

f. Action levels developed under this paragraph must be revised using six months of monitoring data after any change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas.

9. Monitoring, Corrective Action, and Reporting Requirements

a. The mill must conduct daily monitoring of the influent to the wastewater treatment system in accordance with the procedures described in paragraph 8.b. of the previous section for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.

b. Whenever monitoring results exceed the lower action level for the period of time specified in the BMP Plan, the mill must conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP Plan, the mill must complete corrective action to bring the wastewater treatment system influent mass loading below the lower action level as soon as practicable.

c. Although exceedances of the action levels will not constitute violations of the permit, failure to take the actions required by paragraph 9.b. of this section as soon as practicable will be a permit violation.

d. The mill must report to the Department the results of the daily monitoring conducted pursuant to paragraph 9.a. of this section. Such reports must include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. Submission of the BMP exceedances shall be quarterly by the 28th day of April, July, and October. A summary of the daily monitoring results shall be submitted annually by the 28th day of January.

10. Compliance Deadlines

a. The mill must achieve compliance with the BMP requirement(s) upon the permit effective date.

b. New Sources: Upon commencing discharge, new sources subject to this section must implement all of the BMPs specified in paragraph 3. of the previous sections, prepare the BMP Plan required by paragraph 4. of the previous sections, and certify to the Department that the BMP Plan has been prepared in accordance with this permit and 40 CFR part 430 as required by paragraph 6. of the previous sections, except that the action levels required by paragraph 8.e. of the previous sections must be established not later than 12 months after

commencement of discharge, based on six months of monitoring data obtained prior to that date in accordance with the procedures specified in paragraph 8.b. of the previous sections.

E. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process

and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

(1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.
(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface

(3) waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated storm water runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective.

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of storm water from these substances;

e. Prevent or minimize storm water contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent storm water pollution or to remove pollutants from storm water and of the facility in general to ensure that the BMP is continually implemented and effective;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate storm water;

i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the total organic compounds on site; the method of disposal used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that toxic organics do not routinely spill or leak into the storm water;

j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where storm water exits the facility, the locations of any structures or other mechanisms intended to prevent pollution of storm water or to remove pollutants from storm water, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of storm water by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated storm water runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated storm water from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

F. REQUIRED TEST METHODS AND MINIMUM LEVELS FOR INTERNAL BLEACH PLANT MONITORING AND REPORTING

Parameter	Test Method	Minimum Level
TCDD	1613	10 pg/l
TCDF	1613	10 pg/l
Chloroform	601[2]	0.5 µg/l[1]
Trichlorosyringol	1653	2.5 µg/l
3,4,5-trichlorocatechol	1653	5.0 µg/l
3,4,6-trichlorocatechol	1653	5.0 µg/l
3,4,5-trichloroguaiacol	1653	2.5 µg/l
3,4,6-trichloroguaiacol	1653	2.5 µg/l
4,5,6-trichloroguaiacol	1653	2.5 µg/l
2,4,5-trichlorophenol	1653	2.5 µg/l
2,4,6-trichlorophenol	1653	2.5 µg/l
Tetrachlorocatechol	1653	5.0 µg/l
Tetrachloroguaiacol	1653	5.0 µg/l
2,3,4,6-tetrachlorophenol	1653	2.5 µg/l
Pentachlorophenol	1653	5.0 µg/l
AOX	1650	20 µg/l

[1]An ML for chloroform was not promulgated in the Cluster Rules. The value in this permit is typical of levels achieved in papermill effluents as demonstrated through NCASI studies.
[2] Or other method as approved in 40 CFR Part 136
TCDD means 2,3,7,8-tetrachlorodibenzo-p-dioxin.
TCDF means 2,3,7,8-tetrachlorodibenzo-p-furan.
Minimum level means the level at which the analytical system gives recognizable signals and an acceptable calibration point.